Notice of Intent

New Bedford Conservation Commission

Turner Pond Dam Maintenance Project

City of New Bedford,

Massachusetts

October 2014

CDM Smith

CDM Smith

260 West Exchange Street, Suite 300
Providence, Rhode Island 02903
tel: 401 751-5360
fax: 401 274-2173

October 8, 2014

Ms. Sarah Porter
New Bedford Conservation Commission
133 William Street – Room 304
New Bedford, MA 02740

Subject: Notice of Intent – Turner Pond Dam Maintenance Project
Applicant – New Bedford Department of Public Infrastructure

Dear Ms. Porter:

On behalf of the New Bedford Department of Public Infrastructure (DPI), CDM Smith Inc. (CDM Smith) submits this Notice of Intent (NOI) for the required Turner Pond Dam maintenance. The DPI assumed ownership of the dam from the Department of Conservation and Recreation (DCR) between February 2006 and October 2009. The dam is classified by the DCR Office of Dam Safety (ODS) as a large size, significant hazard earthen embankment dam. Per the ODS, earth embankment dams are required to be maintained free of trees and woody vegetation. The DPI needs to perform maintenance on the dam to comply with the ODS regulations, and to improve the overall condition of the dam and to protect public safety.
The following summarizes the maintenance work that will be completed:

1. Cut woody vegetation on the earthen embankment dam, and within 20 feet of the downstream toe, to near ground surface; and

2. Clear debris from in front of the primary spillway and from the downstream discharge channel to maintain free flow through the system.

There are trees at the Turner Pond Dam that are larger than 4-inches in diameter. The maintenance work includes cutting all trees, regardless of diameter, and other woody vegetation. To address concerns related to removing stumps and roots, which could potentially leave large voids in the earthen dam, the maintenance work will not include root/stump removal. Trunk cut surfaces will be sealed with a waterproof sealant (e.g. polyurethane) to protect stumps and delay root ball decay. There will be no excavation of the embankment.

Weather permitting, the proposed maintenance work will be conducted immediately upon approval from the New Bedford and Dartmouth Conservation Commissions.

The proposed work will result in no loss to BVW; however this work will change the plant community type in Bordering Vegetated Wetlands (BVW), Riverfront Area, Bordering Land Subject to Flooding and the 100-foot Buffer Zone. Work areas within and adjacent to resource areas will be re-seeded in place. The project is submitted as a limited project per 310 CMR 10.53(3)(i) as a dam maintenance project. The project is located in Estimated and Priority Habitat. A copy of this Notice of Intent was being submitted concurrently to the Natural Heritage and Endangered Species Program for a 30-day streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review. The project will not result in the any loss of BVW, flood storage,

nor propose any new development of Riverfront Area. Proper mitigation measures will be implemented throughout the maintenance of the dam.

We look forward to discussing this project at your next public meeting scheduled for October 21, 2014. Feel free to call me at (401) 457-0353 with any questions regarding this submittal or to schedule a site visit.

Very truly yours,

Andrew R. Poyant

Andrew R. Poyant, PWS
Environmental Scientist
CDM Smith Inc.

cc: DEP-SERO
NHESP
Ron Labelle, New Bedford DPI Commissioner
Tyler Dunn, CDM Smith
Chuck Adelsberger, CDM Smith

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List of Figures

Appendices

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

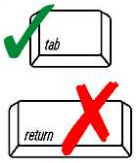
Provided by MassDEP:

MassDEP File Number

Document Transaction Number

New Bedford
City/Town

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



Note: Before completing this form consult your local Conservation Commission regarding any municipal bylaw or ordinance.

A. General Information

1. Project Location (**Note:** electronic filers will click on button to locate project site):

Old Plainville Road — a. Street Address
New Bedford — b. City/Town
02747 — c. Zip Code

Latitude and Longitude:
41.6786 — d. Latitude
-70.9770 — e. Longitude

Map 124 — f. Assessors Map/Plat Number
Lots 1, 21, and 62 — g. Parcel /Lot Number

2. Applicant:

Ronald — a. First Name
Labelle — b. Last Name
New Bedford Department of Public Infrastructure — c. Organization
1105 Shawmut Avenue — d. Street Address
New Bedford — e. City/Town
MA — f. State
02740 — g. Zip Code
508-979-1550 — h. Phone Number
508-961-3054 — i. Fax Number
RonaldL@newbedford-ma.gov — j. Email Address

3. Property owner (required if different from applicant): ☐ Check if more than one owner

a. First Name
b. Last Name
c. Organization
d. Street Address
e. City/Town
f. State
g. Zip Code
h. Phone Number
i. Fax Number
j. Email address

4. Representative (if any):

Andrew — a. First Name
Poyant — b. Last Name
CDM Smith Inc. — c. Company
260 West Exchange Street, Suite 300 — d. Street Address
Providence — e. City/Town
RI — f. State
02903 — g. Zip Code
401-457-0353 — h. Phone Number
401-457-0353 — i. Fax Number
poyantar@cdmsmith.com — j. Email address

5. Total WPA Fee Paid (from NOI Wetland Fee Transmittal Form):

Fee Exempt — a. Total Fee Paid
Fee Exempt — b. State Fee Paid
Fee Exempt — c. City/Town Fee Paid

A. General Information (continued)

6. General Project Description:

The Turner Pond Dam maintenance includes: cutting of woody vegetation on the earthen embankment dam, and within 20 feet of the downstream toe, to near ground surface; removing aminmals from burrows, filling burrow holes, ruts and small depressions, and minor regrading to constant elevation, and loam/seed surface; and clearing debris from the spillway and downstreem.

7a. Project Type Checklist:

1. ☐ Single Family Home
2. ☐ Residential Subdivision
3. ☐ Limited Project Driveway Crossing
4. ☐ Commercial/Industrial
5. ☐ Dock/Pier
6. ☐ Utilities
7. ☐ Coastal Engineering Structure
8. ☐ Agriculture (e.g., cranberries, forestry)
9. ☐ Transportation
10. ☒ Other

7b. Is any portion of the proposed activity eligible to be treated as a limited project subject to 310 CMR 10.24 (coastal) or 310 CMR 10.53 (inland)?

1. ☒ Yes ☐ No If yes, describe which limited project applies to this project:

310 CMR 10.53(3)(i) maintenance, repair and improvement of structures, including dams
2. Limited Project

8. Property recorded at the Registry of Deeds for:

a. County
b. Certificate # (if registered land)
c. Book
d. Page Number

B. Buffer Zone & Resource Area Impacts (temporary & permanent)

1. ☐ Buffer Zone Only – Check if the project is located only in the Buffer Zone of a Bordering Vegetated Wetland, Inland Bank, or Coastal Resource Area.
2. ☒ Inland Resource Areas (see 310 CMR 10.54-10.58; if not applicable, go to Section B.3, Coastal Resource Areas).

Check all that apply below. Attach narrative and any supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.

For all projects affecting other Resource Areas, please attach a narrative explaining how the resource area was delineated.

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. ☐ Bank	1. linear feet	2. linear feet
b. ☒ Bordering Vegetated Wetland	approx. 6,025 sf (temporary) 1. square feet	approx. 6,025 sf (in place) 2. square feet
c. ☐ Land Under Waterbodies and Waterways	1. square feet 3. cubic yards dredged	2. square feet

B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
d. ☒ Bordering Land Subject to Flooding	approx. 3,020 (temporary) 1. square feet	approx. 3,020 (in place) 2. square feet
	0 3. cubic feet of flood storage lost	0 4. cubic feet replaced
e. ☐ Isolated Land Subject to Flooding	1. square feet	
	2. cubic feet of flood storage lost	3. cubic feet replaced
f. ☒ Riverfront Area	Paskamanset River 1. Name of Waterway (if available)	

2. Width of Riverfront Area (check one):

☒ 25 ft. - Designated Densely Developed Areas only

☐ 100 ft. - New agricultural projects only

☐ 200 ft. - All other projects

3. Total area of Riverfront Area on the site of the proposed project: approx. 4,520 square feet

4. Proposed alteration of the Riverfront Area:

a. total square feet	b. square feet within 100 ft.	c. square feet between 100 ft. and 200 ft.
2,000 (temporary)	2,000 (temporary)	N/A

5. Has an alternatives analysis been done and is it attached to this NOI? ☐ Yes ☒ No

6. Was the lot where the activity is proposed created prior to August 1, 1996? ☒ Yes ☐ No

3. ☐ Coastal Resource Areas: (See 310 CMR 10.25-10.35)

Check all that apply below. Attach narrative and supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.

Online Users: Include your document transaction number (provided on your receipt page) with all supplementary information you submit to the Department.

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. ☐ Designated Port Areas	Indicate size under Land Under the Ocean, below	
b. ☐ Land Under the Ocean	1. square feet	
	2. cubic yards dredged	
c. ☐ Barrier Beach	Indicate size under Coastal Beaches and/or Coastal Dunes below	
d. ☐ Coastal Beaches	1. square feet	2. cubic yards beach nourishment
e. ☐ Coastal Dunes	1. square feet	2. cubic yards dune nourishment

B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)

	Size of Proposed Alteration	Proposed Replacement (if any)
f. ☐ Coastal Banks	1. linear feet	
g. ☐ Rocky Intertidal Shores	1. square feet	
h. ☐ Salt Marshes	1. square feet	2. sq ft restoration, rehab., creation
i. ☐ Land Under Salt Ponds	1. square feet 2. cubic yards dredged	
j. ☐ Land Containing Shellfish	1. square feet	
k. ☐ Fish Runs	Indicate size under Coastal Banks, inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above 1. cubic yards dredged	
l. ☐ Land Subject to Coastal Storm Flowage	1. square feet	

4. ☐ Restoration/Enhancement
If the project is for the purpose of restoring or enhancing a wetland resource area in addition to the square footage that has been entered in Section B.2.b or B.3.h above, please enter the additional amount here.

a. square feet of BVW | b. square feet of Salt Marsh

5. ☐ Project Involves Stream Crossings

a. number of new stream crossings | b. number of replacement stream crossings

C. Other Applicable Standards and Requirements

Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

1. Is any portion of the proposed project located in **Estimated Habitat of Rare Wildlife** as indicated on the most recent Estimated Habitat Map of State-Listed Rare Wetland Wildlife published by the Natural Heritage and Endangered Species Program (NHESP)? To view habitat maps, see the *Massachusetts Natural Heritage Atlas* or go to http://maps.massgis.state.ma.us/PRI_EST_HAB/viewer.htm.

a. ☒ Yes ☐ No

If yes, include proof of mailing or hand delivery of NOI to:

Natural Heritage and Endangered Species Program
Division of Fisheries and Wildlife
100 Hartwell Street, Suite 230
West Boylston, MA 01583

2008
b. Date of map

C. Other Applicable Standards and Requirements (cont'd)

If *yes*, the project is also subject to Massachusetts Endangered Species Act (MESA) review (321 CMR 10.18). To qualify for a streamlined, 30-day, MESA/Wetlands Protection Act review, please complete Section C.1.C, and include requested materials with this Notice of Intent (NOI); *OR* complete Section C.1.d, if applicable. *If MESA supplemental information is not included with the NOI, by completing Section 1 of this form, the NHESP will require a separate MESA filing which may take up to 90 days to review (unless noted exceptions in Section 2 apply, see below).*

1. c. Submit Supplemental Information for Endangered Species Review*

   1. ☒ Percentage/acreage of property to be altered:

      (a) within wetland Resource Area — 26.6%/0.21 acres (percentage/acreage)

      (b) outside Resource Area — 73.4%/0.58 acres (percentage/acreage)

   2. ☒ Assessor's Map or right-of-way plan of site

   3. ☒ Project plans for entire project site, including wetland resource areas and areas outside of wetlands jurisdiction, showing existing and proposed conditions, existing and proposed tree/vegetation clearing line, and clearly demarcated limits of work **

      (a) ☒ Project description (including description of impacts outside of wetland resource area & buffer zone)

      (b) ☒ Photographs representative of the site

      (c) ☒ MESA filing fee (fee information available at http://www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/regulatory-review/mass-endangered-species-act-mesa/mesa-fee-schedule.html). Make check payable to "Commonwealth of Massachusetts - NHESP" and ***mail to NHESP*** at above address

      *Projects altering **10 or more acres** of land, also submit:*

      (d) ☐ Vegetation cover type map of site

      (e) ☐ Project plans showing Priority & Estimated Habitat boundaries

   d. OR Check One of the Following

   1. ☐ Project is exempt from MESA review.
      Attach applicant letter indicating which MESA exemption applies. (See 321 CMR 10.14, http://www.mass.gov/eea/agencies/dfg/dfw/laws-regulations/cmr/321-cmr-1000-massachusetts-endangered-species-act.html#10.14; the NOI must still be sent to NHESP if the project is within estimated habitat pursuant to 310 CMR 10.37 and 10.59.)

   2. ☐ Separate MESA review ongoing. — a. NHESP Tracking # — b. Date submitted to NHESP

* Some projects **not** in Estimated Habitat may be located in Priority Habitat, and require NHESP review (see http://www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/regulatory-review/). Priority Habitat includes habitat for state-listed plants and strictly upland species not protected by the Wetlands Protection Act.

** MESA projects may not be segmented (321 CMR 10.16). The applicant must disclose full development plans even if such plans are not required as part of the Notice of Intent process.

C. Other Applicable Standards and Requirements (cont'd)

3. ☐ Separate MESA review completed.
Include copy of NHESP "no Take" determination or valid Conservation & Management Permit with approved plan.

2. For coastal projects only, is any portion of the proposed project located below the mean high water line or in a fish run?

a. ☒ Not applicable – project is in inland resource area only

b. ☐ Yes ☐ No If yes, include proof of mailing or hand delivery of NOI to either:

South Shore - Cohasset to Rhode Island, and the Cape & Islands:

Division of Marine Fisheries -
Southeast Marine Fisheries Station
Attn: Environmental Reviewer
1213 Purchase Street – 3rd Floor
New Bedford, MA 02740-6694

North Shore - Hull to New Hampshire:

Division of Marine Fisheries -
North Shore Office
Attn: Environmental Reviewer
30 Emerson Avenue
Gloucester, MA 01930

Also if yes, the project may require a Chapter 91 license. For coastal towns in the Northeast Region, please contact MassDEP's Boston Office. For coastal towns in the Southeast Region, please contact MassDEP's Southeast Regional Office.

3. Is any portion of the proposed project within an Area of Critical Environmental Concern (ACEC)?

Online Users: Include your document transaction number (provided on your receipt page) with all supplementary information you submit to the Department.

a. ☐ Yes ☒ No If yes, provide name of ACEC (see instructions to WPA Form 3 or MassDEP Website for ACEC locations). **Note:** electronic filers click on Website.

b. ACEC

4. Is any portion of the proposed project within an area designated as an Outstanding Resource Water (ORW) as designated in the Massachusetts Surface Water Quality Standards, 314 CMR 4.00?

a. ☐ Yes ☒ No

5. Is any portion of the site subject to a Wetlands Restriction Order under the Inland Wetlands Restriction Act (M.G.L. c. 131, § 40A) or the Coastal Wetlands Restriction Act (M.G.L. c. 130, § 105)?

a. ☐ Yes ☒ No

6. Is this project subject to provisions of the MassDEP Stormwater Management Standards?

a. ☒ Yes. Attach a copy of the Stormwater Report as required by the Stormwater Management Standards per 310 CMR 10.05(6)(k)-(q) and check if:

1. ☐ Applying for Low Impact Development (LID) site design credits (as described in Stormwater Management Handbook Vol. 2, Chapter 3)

2. ☒ A portion of the site constitutes redevelopment

3. ☐ Proprietary BMPs are included in the Stormwater Management System.

b. ☐ No. Check why the project is exempt:

1. ☐ Single-family house

C. Other Applicable Standards and Requirements (cont'd)

2. ☐ Emergency road repair

3. ☐ Small Residential Subdivision (less than or equal to 4 single-family houses or less than or equal to 4 units in multi-family housing project) with no discharge to Critical Areas.

D. Additional Information

Applicants must include the following with this Notice of Intent (NOI). See instructions for details.

Online Users: Attach the document transaction number (provided on your receipt page) for any of the following information you submit to the Department.

1. ☒ USGS or other map of the area (along with a narrative description, if necessary) containing sufficient information for the Conservation Commission and the Department to locate the site. (Electronic filers may omit this item.)

2. ☒ Plans identifying the location of proposed activities (including activities proposed to serve as a Bordering Vegetated Wetland [BVW] replication area or other mitigating measure) relative to the boundaries of each affected resource area.

3. ☒ Identify the method for BVW and other resource area boundary delineations (MassDEP BVW Field Data Form(s), Determination of Applicability, Order of Resource Area Delineation, etc.), and attach documentation of the methodology.

4. ☒ List the titles and dates for all plans and other materials submitted with this NOI.

Figures 5 and 6
a. Plan Title

b. Prepared By

c. Signed and Stamped by

d. Final Revision Date

e. Scale

f. Additional Plan or Document Title

g. Date

5. ☐ If there is more than one property owner, please attach a list of these property owners not listed on this form.

6. ☒ Attach proof of mailing for Natural Heritage and Endangered Species Program, if needed.

7. ☐ Attach proof of mailing for Massachusetts Division of Marine Fisheries, if needed.

8. ☐ Attach NOI Wetland Fee Transmittal Form

9. ☒ Attach Stormwater Report, if needed.

E. Fees

1. ☒ Fee Exempt: No filing fee shall be assessed for projects of any city, town, county, or district of the Commonwealth, federally recognized Indian tribe housing authority, municipal housing authority, or the Massachusetts Bay Transportation Authority.

Applicants must submit the following information (in addition to pages 1 and 2 of the NOI Wetland Fee Transmittal Form) to confirm fee payment:

2. Municipal Check Number	3. Check date
4. State Check Number	5. Check date
6. Payor name on check: First Name	7. Payor name on check: Last Name

F. Signatures and Submittal Requirements

I hereby certify under the penalties of perjury that the foregoing Notice of Intent and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge. I understand that the Conservation Commission will place notification of this Notice in a local newspaper at the expense of the applicant in accordance with the wetlands regulations, 310 CMR 10.05(5)(a).

I further certify under penalties of perjury that all abutters were notified of this application, pursuant to the requirements of M.G.L. c. 131, § 40. Notice must be made by Certificate of Mailing or in writing by hand delivery or certified mail (return receipt requested) to all abutters within 100 feet of the property line of the project location.

1. Signature of Applicant	2. Date 10/8/14
3. Signature of Property Owner (if different)	4. Date
5. Signature of Representative (if any)	6. Date 10/8/14

For Conservation Commission:
Two copies of the completed Notice of Intent (Form 3), including supporting plans and documents, two copies of the NOI Wetland Fee Transmittal Form, and the city/town fee payment, to the Conservation Commission by certified mail or hand delivery.

For MassDEP:
One copy of the completed Notice of Intent (Form 3), including supporting plans and documents, one copy of the NOI Wetland Fee Transmittal Form, and a **copy** of the state fee payment to the MassDEP Regional Office (see Instructions) by certified mail or hand delivery.

Other:
If the applicant has checked the "yes" box in any part of Section C, Item 3, above, refer to that section and the Instructions for additional submittal requirements.

The original and copies must be sent simultaneously. Failure by the applicant to send copies in a timely manner may result in dismissal of the Notice of Intent.

Project: Turner Pond Maintenance Project

Redevelopment Checklist

Existing Conditions

- On-site: For all redevelopment projects, proponents should document existing conditions, including a description of extent of impervious surfaces, soil types, existing land uses with higher potential pollutant loads, and current onsite stormwater management practices.

RESPONSE: See Attached Project Plans and Notice of Intent for the project description and depiction of existing conditions.

- Watershed: Proponents should determine whether the project is located in a watershed or subwatershed, where flooding, low streamflow or poor water quality is an issue.

The Project

Is the project a redevelopment project?

- Maintenance and improvement of existing roadways
- Development of rehabilitation, expansion or phased project on redeveloped site, or
- Remedial stormwater project

For non-roadway projects, is any portion of the project outside the definition of redevelopment?

RESPONSE: The proposed project consists of maintenance activities on an existing earth embankment dam. No new impervious area is proposed as part of this project., therefore the project is best described as a redevelopment project

- Development of previously undeveloped area
- Increase in impervious surface

If a component of the project is not a redevelopment project, the proponent shall use the checklist set forth below to document that at a minimum the proposed stormwater management system fully meets each Standard for that component. The proponent shall also document that the proposed stormwater management system meets the requirements of Standard 7 for the remainder of the project.

The Stormwater Management Standards

The redevelopment checklist reviews compliance with each of the Stormwater Management Standards in order.

Standard 1: (Untreated discharges)

No new stormwater conveyances (e.g., outfalls) may discharge untreated stormwater directly to or cause erosion in wetlands or waters of the Commonwealth.
Same rule applies for new developments and redevelopments.

Full compliance with Standard 1 is required for new outfalls.

- What BMPs are proposed to ensure that all new discharges associated with the discharge are adequately treated?
- What BMPs are proposed to ensure that no new discharges cause erosion in wetlands or waters of the Commonwealth?
- Will the proposed discharge comply with all applicable requirements of the Massachusetts Clean Waters Act and the regulations promulgated thereunder at 314 CMR 3.00, 314 CMR 4.00 and 314 CMR 5.00?

Existing outfalls shall be brought into compliance with Standard 1 to the maximum extent practicable.

- Are there any existing discharges associated with the redevelopment project for which new treatment could be provided?
- If so, the proponent shall specify the stormwater BMP retrofit measures that have been considered to ensure that the discharges are adequately treated and indicate the reasons for adopting or rejecting those measures. (See Section entitled "Retrofit of Existing BMPs".)
- What BMPs have been considered to prevent erosion from existing stormwater discharges?

RESPONSE: The proposed project is not adding any new stormwater conveyances that may discharge untreated runoff to any outfall or cause any erosion.

Standard 2: (Peak rate control and flood prevention)
Stormwater management systems must be designed so that post-development peak discharge rates do not exceed pre-development peak discharge rates. This Standard may be waived for land subject to coastal storm flowage.
Full compliance for any component that is not a redevelopment

Compliance to the Maximum Extent Practicable:

- Does the redevelopment design meet Standard 2, comparing post-development to pre-development conditions?

RESPONSE: Post-development peak discharge rates will not exceed pre-development peak discharge rates.

- If not, the applicant shall document an analysis of alternative approaches for meeting the Standard. (See Menu of Strategies to Reduce Runoff and Peak Flows and/or Increase Recharge Menu included at the end of this chapter.)

Improvement of existing conditions:

- Does the project reduce the volume and/or rate of runoff to less than current estimated conditions? Has the applicant considered all the alternatives for reducing the volume and/or rate of runoff from the site? (See Menu.)
- Is the project located within a watershed subject to damage by flooding during the 2-year or 10-year 24-hour storm event? If so, does the project design provide for attenuation of the 2-year and 10-year 24-hour storm event to less than current estimated conditions? Have measures been

implemented to reduce the volume of runoff from the site resulting from the 2 year or 10 year 24 hour storm event? (See Menu.)

- Is the project located adjacent to a water body or watercourse subject to adverse impacts from flooding during the 100-year 24-hour storm event? If so, are portions of the site available to increase flood storage adjacent to existing Bordering Land Subject to Flooding (BLSF)?
- Have measures been implemented to attenuate peak rates of discharge during the 100-year 24-hour storm event to less than the peak rates under current estimated conditions? Have measures been implemented to reduce the volume of runoff from the site resulting from the 100-year 24-hour storm event? (See Menu.)

Standard 3: (Recharge to Ground water)

Loss of annual recharge to ground water shall be eliminated or minimized through the use of infiltration measures, including environmentally sensitive site design, low impact development techniques, best management practices, and good operation and maintenance. At a minimum, the annual recharge from the post-development site shall approximate the annual recharge from the pre-development conditions based on soil type. This Standard is met when the stormwater management system is designed to infiltrate the required recharge volume as determined in accordance with the Massachusettss Stormwater Handbook.

Full compliance for any component that is not a redevelopment

RESPONSE: This project will not add any impervious area or propose to collect and discharge any runoff that is currently percolating into the ground. Therefore there will not be a loss of groundwater recharge.

Compliance to the Maximum Extent Practicable:

- Does the redevelopment design meet Standard 3, comparing post-development to pre-development conditions?
- If not, the applicant shall document an analysis of alternative approaches for meeting the Standard?
- What soil types are present on the site? Is the site is comprised solely of C and D soils and bedrock at the land surface?
- Does the project include sites where recharge is proposed at or adjacent to an area classified as contaminated, sites where contamination has been capped in place, sites that have an Activity and Use Limitation (AUL) that precludes inducing runoff to the groundwater, pursuant to MGL Chapter 21E and the Massachusetts Contingency Plan 310 CMR 40.0000; sites that are the location of a solid waste landfill as defined in 310 CMR 19.000; or sites where groundwater from the recharge location flows directly toward a solid waste landfill or 21E site?[1]
- Is the stormwater runoff from a land use with a higher potential pollutant load?
- Is the discharge to the ground located within the Zone II or Interim Wellhead Protection Area of a public water supply?
- Does the site have an infiltration rate greater than 2.4 inches per hour?

Improvements to Existing Conditions:

- Does the project increase the required recharge volume over existing (developed) conditions? If so, can the project be redesigned to reduce the required recharge volume by decreasing impervious surfaces (make building higher, put parking under the building, narrower roads,

[1] A mounding analysis is needed if a site falls within this category. See Volume 3.

sidewalks on only one side of street, etc.) or using low impact development techniques such as porous pavement?

- Is the project located within a basin or sub-basin that has been categorized as under high or medium stress by the Massachusetts Water Resources Commission, or where there is other evidence that there are rivers and streams experiencing low flow problems? If so, have measures been considered to replace the natural recharge lost as a result of the prior development? (See Menu.)

- Has the applicant evaluated measures for reducing site runoff? (See Menu.)

Standard 4: (80% TSS Removal)

Stormwater management systems must be designed to remove 80% of the average annual post-construction load of Total Suspended Solids (TSS). This standard is met when:

a. Suitable practices for source control and pollution prevention are identified in a long-term pollution prevention plan and thereafter are implemented and maintained;

b. Stormwater BMPs are sized to capture the required water quality volume determined in accordance with the Massachusetts Stormwater Handbook; and

c. Pretreatment is provided in accordance with the Massachusetts Stormwater Handbook.

Full compliance for any component that is not a redevelopment

Full compliance with the long-term pollution plan requirement for new developments and redevelopments.

- Has the proponent developed a long-term pollution plan that fully meets the requirements of Standard 4?
- Does the pollution prevention plan include the following source control measures?
    - Street sweeping
    - Proper management of snow, salt, sand and other deicing chemicals
    - Proper management of fertilizers, herbicides and pesticides
    - Stabilization of existing eroding surfaces

Compliance to the Maximum Extent Practicable for the other requirements:

- Does the redevelopment design provide for treatment of all runoff from existing (as well as new) impervious areas to achieve 80% TSS removal? If 80% TSS removal is not achieved, has the stormwater management system been designed to remove TSS to the maximum extent practicable?
- Have the proposed stormwater BMPs been properly sized to capture the prescribed runoff volume?
    - One inch rule applies for discharge
        - within a Zone II or Interim Wellhead Protection Area,
        - near or to another critical area,
        - from a land use with a higher potential pollutant load
        - to the ground where the infiltration rate is greater than 2.4 inches per hour
- Has adequate pretreatment been proposed?
    - 44% TSS Removal Pretreatment Requirement applies if:
        - Stormwater runoff is from a land use with a higher potential pollutant load
        - Stormwater is discharged
            - To the ground within the Zone II or Interim Wellhead Protection Area of a Public Water Supply

- To the ground with an infiltration rate greater than 2.4 inches per hour
- Near or to an Outstanding Resource Water, Special Resource Water, Cold-Water Fishery, Shellfish Growing Area, or Bathing Beach.

• If the stormwater BMPs do not meet all the requirements set forth above, the applicant shall document an analysis of alternative approaches for meeting the these requirements. (See Section on Retrofitting Existing BMPs (the "Retrofit Section").

Improvements to Existing Conditions:

- Have measures been provided to achieve at least partial compliance with the TSS removal standard?
- Have any of the best management practices in the Retrofit Section been considered?
- Have any of the following pollution prevention measures been considered?
  - Reduction or elimination of winter sanding, where safe and prudent to do so
  - Tighter controls over the application of fertilizers, herbicides, and pesticides
  - Landscaping that reduces the need for fertilizer, herbicides and pesticides
  - High frequency sweeping of paved surfaces using vacuum sweepers
  - Improved catch basin cleaning
  - Waterfowl control programs
- Are there any discharges (new or existing) to impaired waters? If so, see TMDL section.

RESPONSE: The Turner Pond Dam Maintenance Project does not include the installation of a new stormwater management system or improvements to existing stormwater management systems.

Standard 5 (Higher Potential Pollutant Loads (HPPL)

For land uses with higher potential pollutant loads, source control and pollution prevention shall be implemented in accordance with the Massachusetts Stormwater Handbook to eliminate or reduce the discharge of stormwater runoff from such land uses to the maximum extent practicable. If through source control and/or pollution prevention, all land uses with higher potential pollutant loads cannot be completely protected from exposure to rain, snow, snow melt and stormwater runoff, the proponent shall use the specific stormwater BMPs determined by the Department to be suitable for such use as provided in the Massachusetts Stormwater Handbook. Stormwater discharges from land uses with higher potential pollutant loads shall also comply with the requirements of the Massachusetts Clean Waters Act, M.G.L. c. 21, §§ 26-53, and the regulations promulgated thereunder at 314 CMR 3.00, 314 CMR 4.00 and 314 CMR 5.00.

Full compliance for any component that is not a redevelopment.

Full compliance with pollution prevention requirements for new developments and redevelopments.

RESPONSE: Not applicable

Standard 6 (Critical Areas)

Stormwater discharges to a Zone II or Interim Wellhead Protection Area of a public water supply and stormwater discharges near or any other critical area require the use of the specific source control and pollution prevention measures and the specific stormwater best management practices determined by the Department to be suitable for managing discharges to such area, as provided in the Massachusetts Stormwater Handbook. A discharge is near a critical area if there is a strong likelihood of a significant impact occurring to said area, taking into account site-specific factors. Stormwater discharges to Outstanding Resource Waters or Special Resource Waters shall be set back from the

receiving water and receive the highest and best practical method of treatment. A "stormwater discharge," as defined in 314 CMR 3.04(2)(a)1. or (b), to an Outstanding Resource Water or Special Resource Water shall comply with 314 CMR 3.00 and 314 CMR 4.00. Stormwater discharges to a Zone I or Zone A are prohibited unless essential to the operation of the public water supply.
Full compliance for component of project that is not a redevelopment
Full compliance with pollution prevention requirements for new developments and redevelopments.

RESPONSE: Not applicable.

Standard 8: (Erosion, Sediment Control)
A plan to control construction-related impacts, including erosion sedimentation and other pollutant sources during construction and land disturbance activities (construction period erosion, sedimentation, and pollution prevention plan), must be developed and implemented.

All redevelopment projects shall fully comply with Standard 8.

- Has the proponent submitted a construction period erosion, sedimentation and pollution prevention plan that meets the requirements of Standard 8?

RESPONSE: The mitigation measures provided in the NOI will be implemented to reduce potential erosion, sedimentation and pollution during construction.

Standard 9: (Operation and Maintenance)
A long-term operation and maintenance plan must be developed and implemented to ensure that stormwater management systems function as designed.
All redevelopment projects shall fully comply with Standard 9.

- Has the proponent submitted a long-term Operation and Maintenance plan that meets the requirements of Standard 9?

RESPONSE: The Turner Pond Dam Maintenance Project does not include the installation of a new stormwater management system. The existing drainage systems within the project area are being maintained in accordance with the city-wide Operation and Maintenance Plan.

Standard 10 (Illicit Discharges)
All illicit discharges to the stormwater management system are prohibited.
All redevelopment projects shall fully comply with Standard 10.

- Are there any known or suspected illicit discharges to the stormwater management system at the redevelopment project site?

RESPONSE: Not Applicable.

- Has an illicit connection detection program been implemented using visual screening, dye or smoke testing?

RESPONSE: Not Applicable.

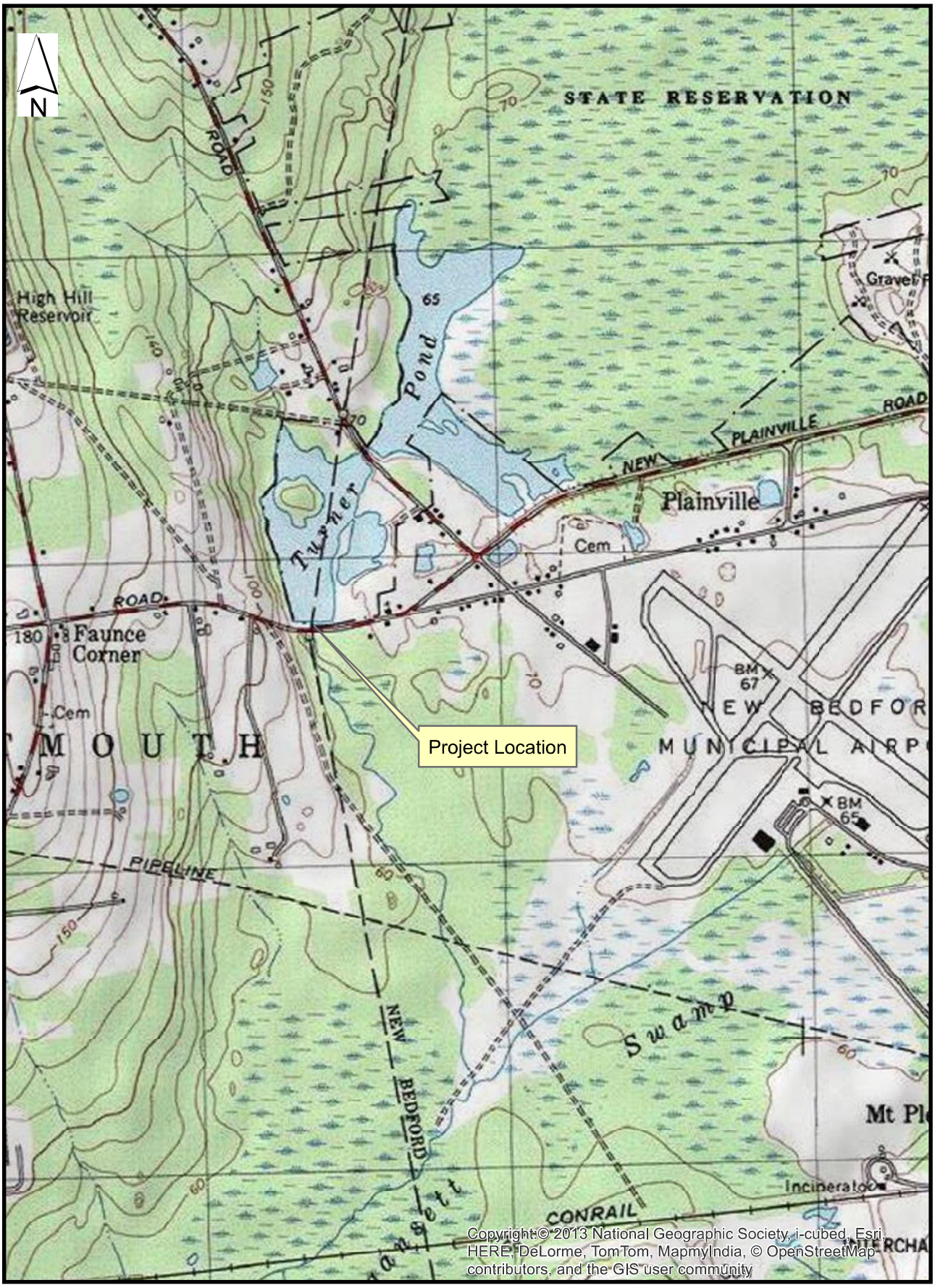
- Have an Illicit Discharge Compliance Statement and associated site map been submitted verifying that there are no illicit discharges to the stormwater management system at the site?

RESPONSE: Not Applicable.

Improvements to Existing Conditions:

- Once all illicit discharges are removed, has the proponent implemented any measures to prevent additional illicit discharges?

RESPONSE: Not Applicable.



0 0.1 0.2 0.4 0.6 0.8 Miles

Scale in Miles

Turner Pond Dam
New Bedford & Dartmouth, Massachusetts

Figure 1
Project Location Map

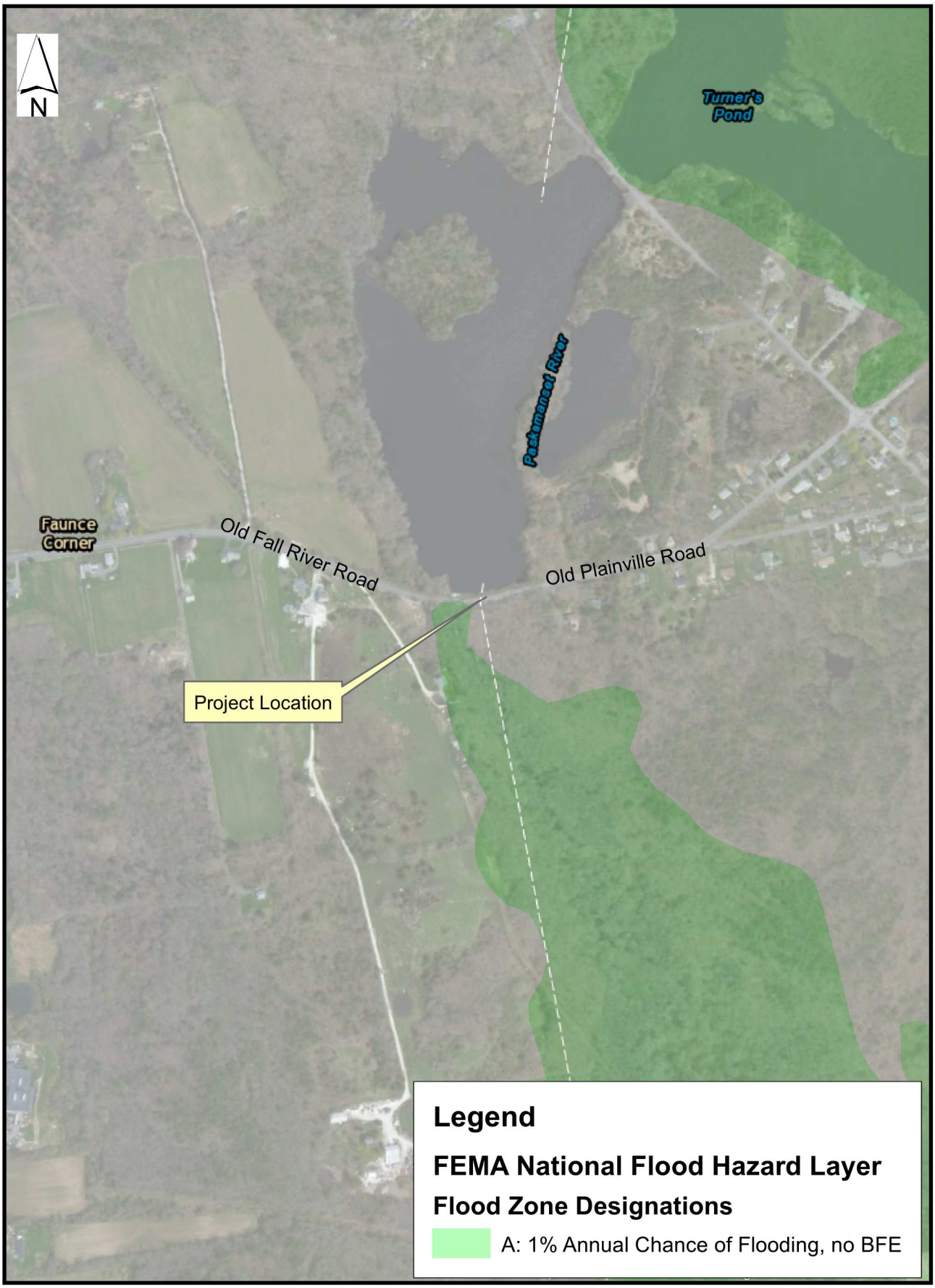
Turner Pond Dam
New Bedford & Dartmouth, Massachusetts

Figure 2
NHESP Habitats Map

CDM Smith

0 0.05 0.1 0.2 0.3 0.4 Miles

Scale in Miles



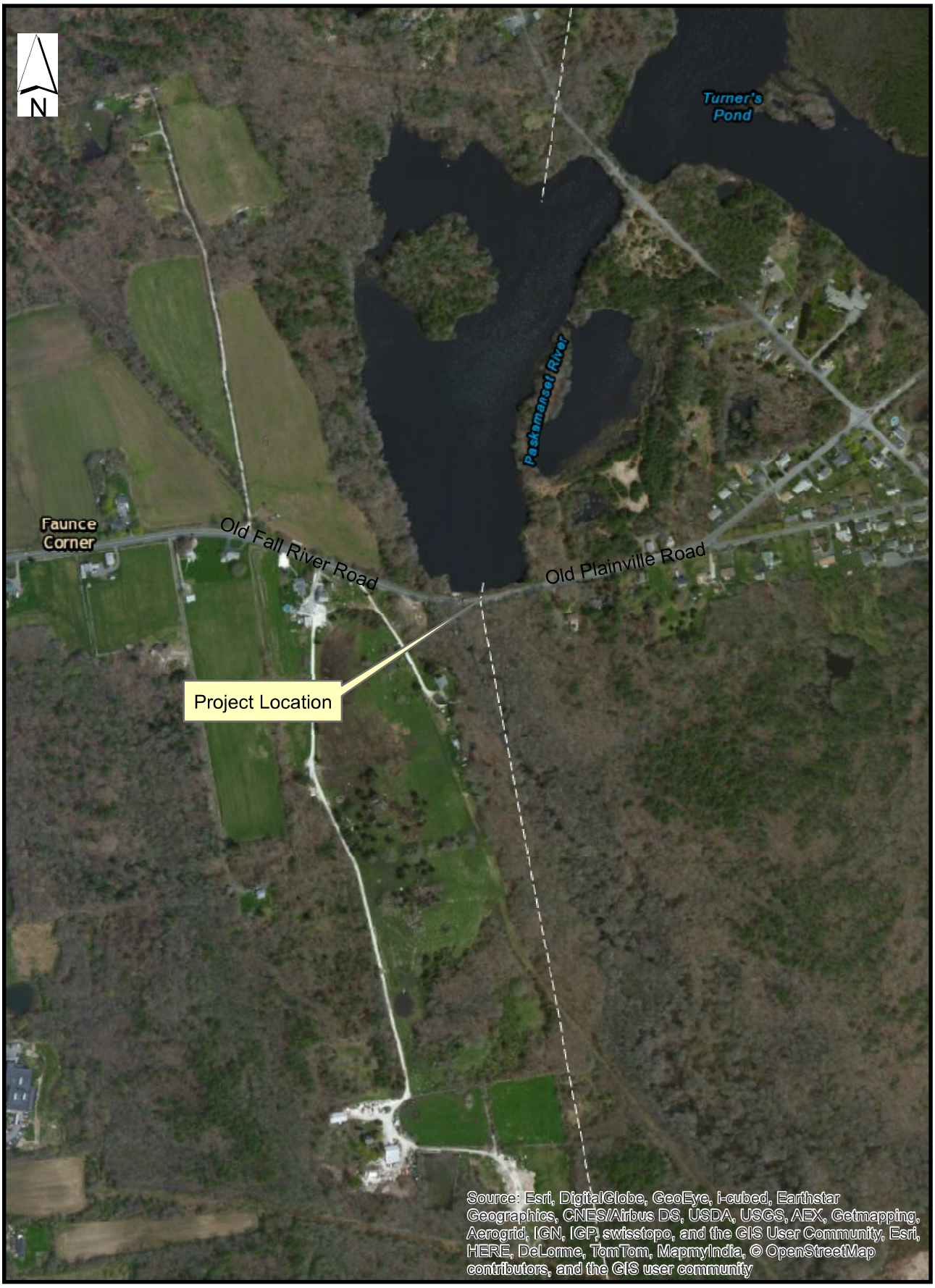
Turner Pond Dam
New Bedford & Dartmouth, Massachusetts

Figure 3
Flood Insurance Rate Map

CDM Smith

0 0.05 0.1 0.2 0.3 0.4 Miles

Scale in Miles



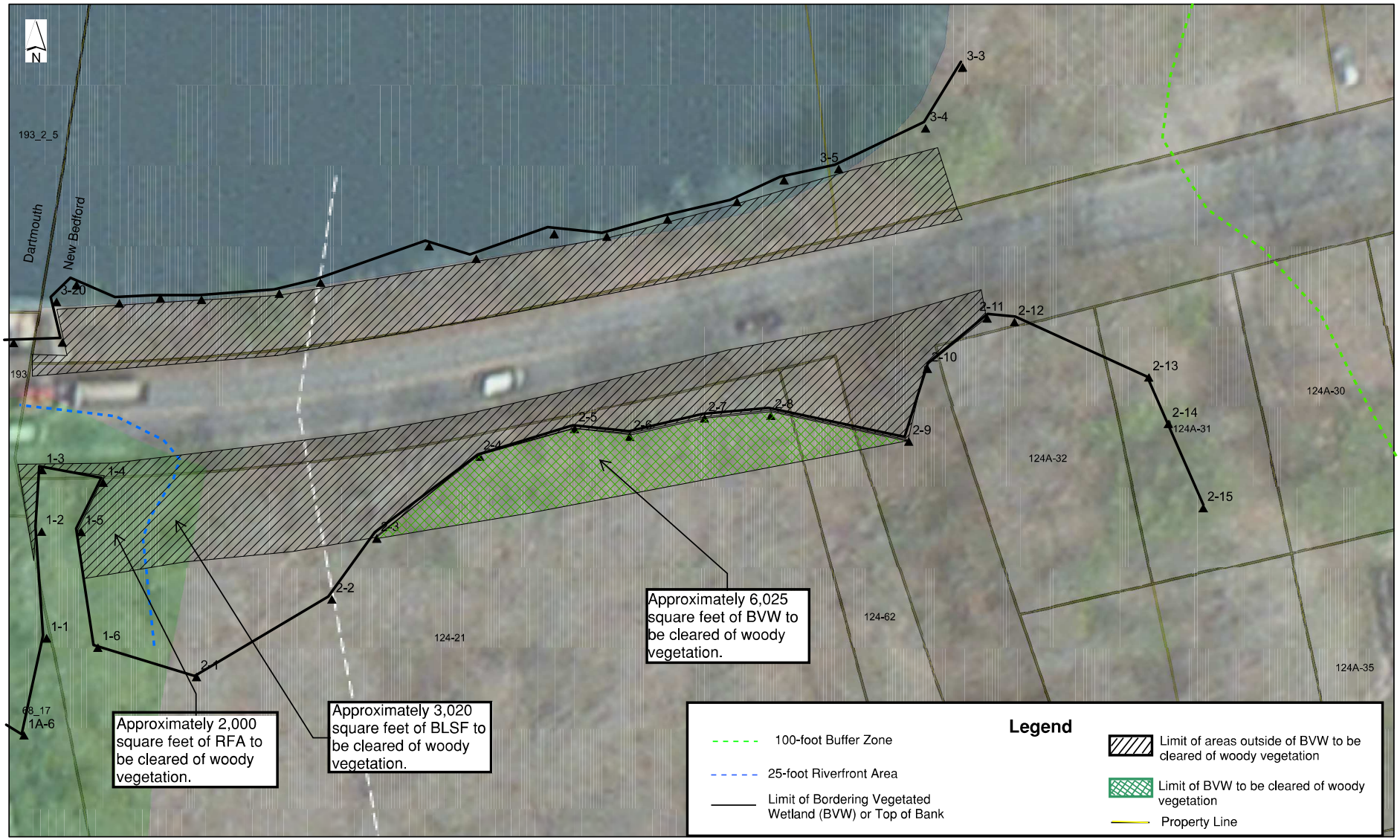
Turner Pond Dam
New Bedford & Dartmouth, Massachusetts

CDM Smith

0 0.05 0.1 0.2 0.3 0.4
Miles

Scale in Miles

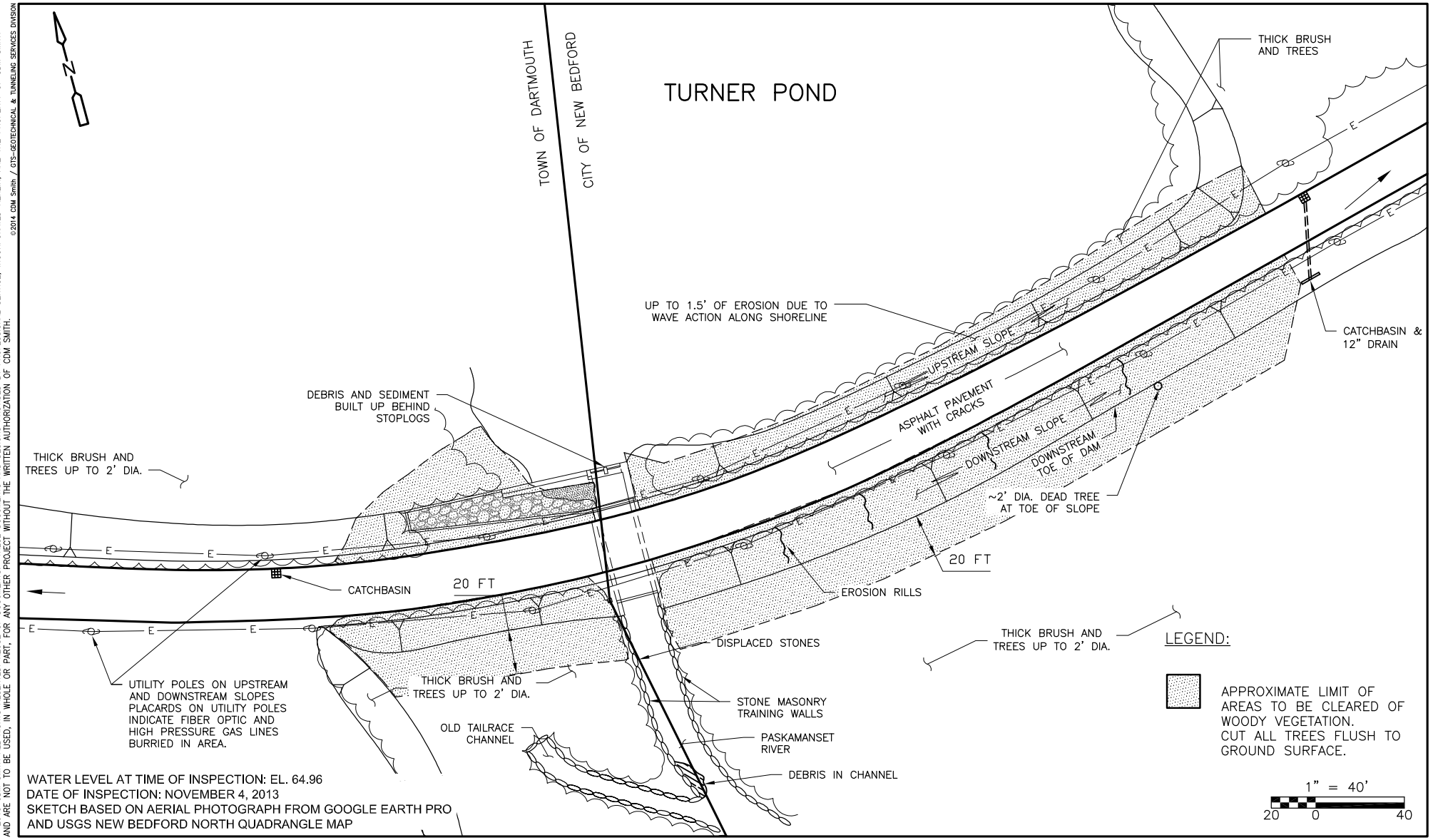
Figure 4
Project Aerial Map



CDM Smith

Turner Pond Dam
New Bedford & Dartmouth, Massachusetts

Figure 5
New Bedford Clearing Plan



WATER LEVEL AT TIME OF INSPECTION: EL. 64.96
DATE OF INSPECTION: NOVEMBER 4, 2013
SKETCH BASED ON AERIAL PHOTOGRAPH FROM GOOGLE EARTH PRO AND USGS NEW BEDFORD NORTH QUADRANGLE MAP

CDM Smith

CITY OF NEW BEDFORD, MASSACHUSETTS
TURNER POND DAM
STATE DAM ID NO.: 36-3-201- NID ID NO.: MA03266

PROPOSED CLEARING
FIGURE 6
OCTOBER 2014

pw: \\dacpwapp1:PW_XM1\Documents\0309\101163\03 Reports and Studies\09 CADD Figures and Graphics\Turner Pond Dam\B001WFFG.DWG
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Appendix A
Project Narrative

Appendix A
Project Narrative

1.0 Introduction

This Notice of Intent (NOI) is being filed with the New Bedford Conservation Commission by the New Bedford Department of Public Infrastructure (DPI) for required maintenance activities of the Turner Pond Dam on Old Plainville Road in New Bedford. A NOI is also being filed with the Dartmouth Conservation Commission for the portion of the work located on Old Fall River Road in Dartmouth. The dam is classified by the Department of Conservation and Recreation (DCR) Office of Dam Safety (ODS) as a large size, significant hazard earthen embankment dam. Based on a dam inspection conducted by CDM Smith Inc. (CDM Smith) Geotechnical Engineers on November 4, 2013, the dam was found to be in poor condition. Per the ODS, earth embankment dams are required to be maintained free of trees and woody growth, see Appendix B for the ODS Policy on Trees on Dams. The DPI is needs to maintain this dam to improve its condition and protect public safety, and this should change in the dam rating from poor to fair.

The required maintenance includes:

- cutting of woody vegetation on the earthen embankment dam, and within 20 feet of the downstream toe, to near ground surface; and
- clearing debris from in front of the primary spillway and from the downstream discharge channel to maintain free flow through the system.

The required maintenance will require vegetation cutting in Bordering Vegetated Wetlands (BVW), Bordering Land Subject to Flooding (BLSF) Riverfront Area (RFA) and the 100-foot Buffer Zone to BVW and Inland Bank. This work will result in no loss of BVW, no loss of flood storage, and no development in the RFA. Sedimentation and erosion control barriers will be placed at the limit of work prior to the commencement of maintenance activities.

The following sections address the existing on-site wetland conditions, work proposed adjacent to wetland resource areas, priority habitat of rare species and also estimated habitat of rare wildlife, status as a limited project, and proposed measures to mitigate construction impacts.

2.0 Existing Conditions

2.1 Wetland Resource Areas Delineation

On August 18, 2014, CDM Smith Inc. (CDM Smith) Wetland Scientists delineated wetland resource areas in the project area. Existing field delineated wetland resource boundaries were evaluated for conformance with the Massachusetts Wetlands Protection Act (MGL c.131, s.40) and Regulations (310 CMR 10.00) and the U.S. Army Corps of Engineers 1987 Wetlands Delineation Manual (Environmental Laboratory, 1987) and Regional Supplement for the North Central and Northeast Region (January 2012). The wetland boundary was determined by the limit of wetland vegetation (limit of plant

community dominated [50 percent or more cover] by species adapted to living in wetland conditions) by visual inspection, as well as indicators of hydric soils and wetland hydrology. Wetland boundaries were flagged and were located with a Trimble Geo XT GPS unit with 50 cm accuracy and are shown on Figure 5.

2.1.1 Bordering Vegetated Wetlands

Bordering Vegetated Wetland (BVW) is defined as:

"freshwater wetlands which border on creeks, rivers, streams, ponds, and lakes. The types of freshwater wetlands are wet meadows, marshes, swamps, and bogs. Bordering Vegetated Wetlands are areas where the soils are saturated and/or inundated such that they support a predominance of wetland indicator plants..." [310 CMR 10.55 (2)].

BVW is associated with Turner Pond and the discharge channel. BVW is described below as flaglines since they are associated with Turner Pond and the Paskamanset River, and not individual wetlands. The Cowardin Wetland Classification System was used to describe BVW.

2.1.2 Inland Bank

Inland Bank is defined as:

"*the portion of the land surface which normally abuts and confines a water body. It occurs between a water body and a vegetated bordering wetland and adjacent flood plain, or in the absence of these, it occurs between a water body and an upland [310 CMR 10.54 (2)(a)].*"

Inland Bank is associated with Turner Pond and the Paskamanset River. Inland Bank was delineated in the Project Area where a BVW is not landward of the Inland Bank, see below.

<u>Flagline 1 (Wetland Flags 1A-1 to 1A-6 connects to 1-1 to 1-6)</u>

Flags 1-A1 to 1A-6 which connects to flags 1-1 through 1-6 demarcate the Top of Inland Bank of the Paskamanset River. The bank consists of a vertical rock wall in some areas, while in other areas it appears that the wall has collapsed into the stream (see Photographs 1-7 in Appendix C).

<u>Flagline 2 (Wetland Flags 2-1 through 2-15)</u>

Flags 2-1 through 2-15 demarcate a Palustrine Forested Swamp dominated by Broad Leaved Deciduous trees (PFO1). The dominant tree species are red maple (*Acer rubrum*) and green ash (*Fraxinus pennsylvanica*). The wetland also supports an understory of spicebush (*Lindera benzoin*), northern arrowwood (*Viburnum recognitum*), sweet peeperbush (*Clethra alnifolia*), and multiflora rose (*Rosa multiflora*). The herbaceous layer is dominated by royal fern (*Osmunda spectabilis*), and poison ivy (*Toxicodendron radicans*). The wetland boarders on the discharge channel (see Photographs 8-10). Wetland Determination Data Forms were completed in Wetland 2 and are located in Appendix D.

Flagline 3 (Wetland Flags 3-1 through 3-35)

Flags 3-1 through 3-20 demarcate the Top of Inland Bank of Turner Pond. In some locations there is a fringe of BVW characteristic of a with a PFO1/Palustrine Scrub Shrub wetland dominated by Broad Leaved Deciduous trees (PSS1) (see Photographs 11 through 17) approximately 10 feet east of the spill way.

Just east of the spillway and down-gradient of the PFO1/PSS1 is a Palustrine Emergent Marsh with Permanent Vegetation (PEM1). The PEM1 supports pond lily (*Nuphar lutea*), duckweed (*Lemna* sp.), joe pye weed (*Eutrochium maculatum*), smart weed (*Polygonum* sp.), buttonbush (*Cephalanthus occidentalis*), shallow sedge (*Carex lurida*), broadleaf cattail (*Typha latifolia*), pickerelweed (*Pontederia cordata*), common rush (*Juncus effusus*), woolgrass (*Scirpus cyperinus*), spikerush (*Eleocharis* sp.), and bedstraw (*Galium* sp.) (see Photographs 11, 12, 13, 15, 17, and 19).

Flags 3-20 through 3-26 demarcate the concrete headwall and Top of Inland Bank (see Photograph 18).

Flags 3-26 through 3-35 demarcate a BVW characteristic of a PFO1. The PFO1/PSS1 supports red maple, willow (*Salix* sp.), speckled alder (*Alnus incana*), highbush blueberry (*Vaccinium corymbosum*), sweet pepperbush, joe pye weed, northern arrowwood, poison ivy, and sensitive fern (*Onoclea sensibilis*) (Photograph 20).

2.1.3 Riverfront Area

Riverfront Area (RFA) is defined as:

"*the area of land between a river's mean annual high water line and a parallel line measured horizontally* [310 CMR 10.58 (2)]."

A 25-foot Riverfront Area is associated with the Paskamanset River on the New Bedford side of the channel.

2.1.4 Bordering Land Subject to Flooding

Bordering Land Subject to Flooding (BLSF) is defined as:

"*an area with low, flat topography adjacent to and inundated by flood waters rising from creeks, rivers, streams, ponds or lakes. It extends from the banks of these waterways and water bodies; where a bordering vegetated wetland occurs; it extends from said wetland. The boundary of Bordering Land Subject to Flooding is the estimated maximum lateral extent of flood water which will theoretically result from the statistical 100-year frequency storm* 310 CMR 10.57 (2) (a)(1) and (3)."

BLSF is associated with the Paskamanset River downstream of the spillway, see Figure 3.

2.1.5 Wildlife Habitat

The Turner Pond Dam is located in an Estimated and Priority Habitat polygon designated by the Natural Heritage and Endangered Species Program (NHESP). This NOI is being submitted concurrently to the NHESP with a request for a streamlined, 30 day, Massachusetts Endangered Species Act

(MESA)/Wetlands Protection Act (WPA) Review. The project is located in Priority Habitat ID 1349 and Estimated Habitat ID 1, see Figure 2.

2.1.6 City of New Bedford 25-foot Setback

The DPI requests a waiver from the City of New Bedford's 25-foot Setback. This project is required by the ODS to maintain public safety. It is necessary that dam maintenance work occur within 25 feet of a resource area. City of New Bedford Ordinance states "this 25' setback is not a mandate of this Ordinance."

3.0 Work Proposed in Wetland Resource Areas and the 100-Foot Buffer Zone

3.1 General Work Descriptions

Work will occur within BVW, BLSF, the 25-foot RFA and the 100-foot Buffer Zone to BVW or Inland Bank. This work will result in no loss of BVW, no loss of flood storage, and no development in the RFA; however, vegetation cutting will converting PFO/PSS wetland communities to PEM and wooded uplands to meadow. These changes to plant community types are not anticipated to have an adverse effect on adjacent waterways.

Before work starts, straw bales or silt fence will be installed at the limit of work to prevent the transport of sediment to Turner Pond. Upon completion of maintenance activities, areas within BVW will be reseeded with a native wetland seed mix void of woody vegetation (e.g. New England Wet Mix, New England Wetland Plants, Inc.) within wetlands and conservation or wildlife seed mix void of woody vegetation (e.g. New England Conservation/Wildlife Mix, New England Wetland Plants, Inc. or one specified by Natural Heritage and Endangered Species Program) in uplands. The area will be maintained and re-seeded if necessary to ensure that vegetation cover is adequate to stabilize any exposed soil.

The following maintenance tasks are proposed to be undertaken:

3.1.1 Vegetation and Tree Maintenance

Cut woody vegetation to near ground surface on the earthen dam, and to within 20 feet of the downstream toe or up to the diversion channel stream, whichever is less. There are trees at Turner Pond Dam that are larger than 4-inches in diameter and maintenance recommendations include cutting all trees and woody vegetation (regardless of size). Removal of remaining trunks and root balls will not be included (regardless of tree size) as part of the maintenance activities. No excavation of the embankment will be performed. Cut surfaces of the tree trunks will be sealed with a waterproof sealant (e.g., polyurethane) to delay or minimize stump and root ball decay.

3.1.2 Cleaning

Remove debris from spillway and the downstream discharge channel to maintain free flow.

3.1.3 Ongoing Maintenance

To keep the dam in good repair and in compliance with ODS standards; a maintenance plan will be in place after the initial work is complete. Maintenance will require inspections and vegetation cutting

to maintain the dam free of woody vegetation. The maintenance plan will include the frequency of clearing of woody vegetation and cleaning of the spillway and downstream discharge channel.

3.2 Work Proposed within Wetland Resource Areas and the 100-foot Buffer Zone

3.2.1 Work Within Bordering Vegetated Wetlands

Approximately 6,025 square feet of BVW will be cut to maintain to remove woody vegetation from this the earthen dam. This work is required to improve the structural integrity and safety of the dam. Work within BVW will proceed as described in Section 3.1.1. All disturbed BVW will be seeded with a wetland seed mix void of woody plant seeds. Although the plant community type will change, there will be no loss of BVW. BVW will be reseeded in place to stabilize any exposed soils.

3.2.2 Work Within Riverfront Area

Approximately 2,000 square feet of vegetation cutting will occur within the 25-foot RFA associated with the Paskamanset River to improve the structural integrity and safety of the dam. Work within RFA will proceed as described in Section 3.1.1. All disturbed RFA will be seeded with a conservation/wildlife seed mix (e.g. New England Conservation/wildlife mix or other specified by NHESP) void of woody vegetation seeds. There is no proposed development or increase in impervious area within RFA, or as a part of this project. The project will change the plant community within RFA, however a conservation/wildlife seed mix will be seeded outside of BVW to foster wildlife habitat. This work is required to comply with the Office of Dam Safety, therefore there is no alternative to the proposed work.

3.2.3 Work Within Bordering Land Subject to Flooding

Approximately 3,020 square feet of vegetation cutting will occur within BLSF associated with the Paskamanset River to improve the structural integrity and safety of the dam. Work within BLSF will proceed as described in Section 3.1.1. All disturbed BLSF will be seeded with a conservation/wildlife seed mix (e.g. New England Conservation/wildlife mix or other specified by Natural Heritage and Endangered Species Program) void of woody vegetation seeds. Maintenance work within BLSF does not include a change in elevations; the proposed work will not result in any loss of flood storage.

3.2.4 Work Within Estimated and Priority Habitat

Approximately 0.79 acres of vegetation cutting in New Bedford will occur within Estimated and Priority Habitat. As described above this work is required to improve the structural integrity and and safety of the dam. Work within Estimated and Priority Habitat will proceed as described in Sections 3.1.1, and 3.1.2. Disturbed BVW will be seeded with a New England Wetland Seed Mix and all upland areas will be seeded with a conservation/wildlife seed mix (e.g. New England Conservation/wildlife mix or other specified by NHESP) void of woody vegetation seeds to foster wildlife habitat. This NOI is being submitted concurrently to the NHESP with a request for a streamlined, 30 day, MESA/WPA Review.

3.2.5 100-foot Buffer Zone to BVW or Inland Bank

A portion of the work will take place within the 100-foot Buffer Zone to BVW or Inland Bank. Work within The 100-foot Buffer Zone will proceed as described in Section 3.1.1. All disturbed the 100-foot

Buffer Zone will be seeded with a conservation/wildlife seed mix (e.g. New England Conservation/wildlife mix or other specified by NHESP) void of woody vegetation seeds to foster wildlife habitat.

3. 2.7 City of New Bedford 25-foot No Disturb Zone

There is no proposed within the locally regulated 25-foot No Disturb Zone surrounding the regulated BVW.

3. 2.8 Limited Project

The proposed project is a consistent with being a limited project per 310 CMR 10.53(3)(i):

310 CMR 10.53(3) reads in part; *"Notwithstanding the provisions of 310 CMR 10.54 through 10.58 and 10.60, the issuing authority may issue an Order of Conditions and impose such conditions as will contribute to the interests identified in M.G.L.c. 131, §40A, permitting the following limited projects (although no such project may be permitted which will have any adverse effect on specified habitat sites of rare vertebrate or invertebrate species, as identified by procedures established under 310 CMR 10.59). In the exercise of this discretion, the issuing authority shall consider the magnitude of the alteration and the significance of the project site to the interests identified in M.G.L.c. 131, § 40, the availability of reasonable alternatives to the proposed activity, the extent to which adverse impacts are minimized, and the extent to which mitigation measures, including replication or restoration are provided to contribute to the protection of the interests identified in M.G.L.c. 131, §40* [310 CMR 10.53(3)."

Below in italics are the requirements of the limited project status followed by responses are in regular font.

- *Although no such project may be permitted which will have any adverse effect on specified habitat sites of rare vertebrate or invertebrate species, as identified by procedures established under 310 CMR 10.59*)

  The project is located within Estimated and Priority Habitat and a streamlined, 30 day, MESA/WPA review was requested. The project is required to comply with the ODS Policy on Trees on Dams. Areas outside of BVW will be seeded with a conservation/wildlife seed mix void of woody vegetation seeds, or an equivalent seed mix required by NHESP.

- *In the exercise of this discretion, the issuing authority shall consider the magnitude of the alteration and the significance of the project site to the interests identified in M.G.L.c. 131, § 40.*

  The purpose of the project is consistent with the interests identified in M.G.L.c. 131, § 40, specifically flood control, and storm damage prevention. The project is designed to uphold the interests of the WPA and meet public safety requirements of the ODS.

- *The availability of reasonable alternatives to the proposed activity.*

  Woody vegetation cutting is required to improve the structural integrity and safety of the Turner Pond Dam, and raise the safety rating from Poor to Fair. The "no work" alternative, would not improve the structure and safety of the dam. Alternatives that

remove stumps and roots would cause more soil disturbance on the earthen dam. Thus, the work described herein is considered the least environmentally damaging practicable alternative that balances requirements of the WPA and the ODS dam safety requirements. Mitigation measures will be implemented to decrease construction period impacts.

- *The extent to which adverse impacts are minimized, and the extent to which mitigation measures, including replication or restoration are provided to contribute to the protection of the interests identified in M.G.L.c. 131, §40.*
    - There will be no net loss of BVW, flood storage, or conversion of RFA from undeveloped to developed land. The change in community type from forested to marsh, or upland woods to meadow, is required to comply with the ODS policies. BVW will be seeded with a wetland seed mixture and work outside of BVW will be seeded with a conservation/wildlife seed mixture to stabilize the dam and improve wildlife habitat when compared to seeding with grass. A full list of mitigation measures are described below in Section 4.

310 cmr 10.53(3)(l) reads, "The maintenance, repair and improvement (but not substantial enlargement) of structures, including dams and reservoirs and appurtenant works to such dams and reservoirs, buildings, piers, towers, headwalls, bridges, and culverts which existed on the effective date of 310 CMR 10.51 through 10.60 (April 1, 1983). When water levels are drawn down for the maintenance, repair, or improvement of dams or reservoirs or appurtenant works to such dams or reservoirs under 310 CMR 10.53(3)(i), water levels that existed immediately prior to such projects being undertaken shall be restored upon completion of the work, and a new Notice of Intent need not be filed for such restoration. [310 CMR 10.53(3)(i)]*."*

The project is consistent with 310 CMR 10.53(3)(i); because it is limited to maintenance of the Turner Pond Dam. Water levels will not be drawn down as a part of the proposed maintenance work.

4.0 Mitigation Measures

4.1 Construction Period

The following summary presents the mitigation measures that will be implemented to avoid or minimize wetland impacts during construction. Please refer to the project plans for typical details of measures to protect wetlands and waterways during and after construction.

- Prior to the removal of woody vegetation, wetland flags will be located and pin flags or wooden stakes with wetland flagging will be placed adjacent to any wetland flags located on woody vegetation that will be removed.
- Sedimentation barriers (i.e. straw bales or silt fence) will be installed at the down gradient limits of work prior to the commencement of work to prevent the transport of sediment to the down gradient wetland resources during construction. These barriers will remain in place until all disturbed soils are stabilized.

- Work adjacent to resource areas will proceed as rapidly as possible. Limiting the exposure time of disturbed soils to wind and precipitation will minimize the soil erosion and subsequent sedimentation.
- Periodic inspections will be made by the applicant to ensure compliance with the permit conditions.
- Spill containment equipment (e.g., oil absorbent pads, oil absorbent materials, containment booms, shovels, etc.) will be stored in the equipment and refueling areas in an easily accessible manner for use in the cleanup of accidental releases of fuel or other hazardous substances.
- Maintenance and refueling of vehicles will take place outside of the 100-foot buffer zone to any resource areas.
- If seeding occurs outside of the growing season, temporary stabilization measures (i.e., mulching or erosion control blankets will be used to prevent erosion until the area can be seeded during the following growing season.

Post Maintenance Measures

- All disturbed soils in Bordering Vegetated Wetlands will be permanently stabilized with a wetland seed mixture void of wood plant seeds. All disturbed areas outside of Bordering Vegetated Wetlands will be stabilized with a conservation/wildlife seed mixture void of woody vegetation seeds. The area will be maintained and re-seeded to ensure that cover is adequate to stabilize the exposed soil.
- The sedimentation barriers will not be removed until a vegetation cover dense enough to prevent erosion is established in the work area.

5.0 Summary

The purpose of the project is to maintain the dam as required by the Office of Dam Safety, which will improve public safety, and the flood control and storm damage prevention interests of the BVW, BLSF and RFA associated with the Turner Pond Dam. The project qualifies as a limited project and appropriate mitigation measures will be implemented throughout the course of the dam maintenance. This dam maintenance project does not result in loss of BVW; wetland vegetation will be restored in place. There is no loss in flood storage from the proposed work, and Riverfront Area will not be converted from undeveloped to developed land.

Appendix B
Office of Dam Safety Policy on Trees on Dams

The Official Website of the Executive Office of Energy and Environmental Affairs

Energy and Environmental Affairs

EEA Home Agencies Department of Conservation and Recreation Conservation Dam Safety Policy on Trees on Dams

Office of Dam Safety Policy on Trees on Dams

Tree and woody vegetation growth on earthen dams and in close proximity to other dams such as concrete dams is undesirable and at a minimum has some level of detrimental impact upon operation, inspection, performance, and safety of dams.

The Massachusetts Office of Dam Safety requires that earth embankment dams be maintained free of the existence of trees and woody growth. Tree roots cause serious structural damage to earth embankment and appurtenant dam features such as gate wells, spillway walls and other components.

It is recommended that earth embankment dams be maintained with a healthy uniform cover of desirable vegetation such as an appropriate variety of grasses. Dam embankment grass should be mowed periodically to promote healthy cover and prevent infestation of undesirable woody growth and weeds.

Trees and woody growth can make it difficult to conduct inspections of dams. Tree roots can cause leaks, damage concrete joints and overturn during high wind events causing large voids due to pull out of root balls and cause many other problems that will be very costly to repair. Trees and woody growth located in spillways will dramatically reduce spillway flow capacity. Trees are known to accelerate deterioration of dams and can lead to dam failure.

It is recommended that the area at least 20 feet downstream from the entire downstream toe of earth embankment dams be maintained free of trees and woody growth. This is necessary to prevent root systems from growing into the dam embankment causing damage to this area of the dam.

For concrete dams and appurtenant features of all dams it is recommended that tree growth not be allowed to occur within 20 feet of such features. In some cases it may be necessary to maintain a greater distance to ensure roots do not adversely impact dam components. Do not allow tree growth in areas located above buried conduits/pipes.

Prior to removal of existing trees and woody growth from dams, part A of a Chapter 253 Dam Safety Permit Application must be submitted to the Office of Dam Safety. Permit applications should be prepared by a qualified dam engineer for larger projects involving removal of trees in excess of 4 inches and where there is planned excavation of roots. The Office of Dam Safety will review applications and determine if the planned work requires a permit. If the project involves removal of brush and trees 4 inches and less in diameter the Office of Dam Safety may find a permit is not necessary to conduct the work. In general routine maintenance activity does not require a permit.

Sources of Information Pertaining to Trees and Vegetation on Dams

Dam Owner's Guide to Plant Impact on Earthen Dams

FEMA Publication L-263, September 2005

FEMA Publication L-263 1MB

This brochure is intended to help dam owners nationwide identify and mitigate problem vegetation before adverse effects occur.

Technical Manual for Dam Owners

Impacts of Plants on Earthen Dams

FEMA Publication 534, September 2005

FEMA Publication 534 2MB

Damage to earthen dams and dam safety issues associated with tree and woody vegetation penetrations of earthen dams is all too often believed to be routine maintenance situations by many dam owners and engineers.

Contrary to this belief, tree and woody vegetation penetrations of earthen dams and their appurtenances have been demonstrated to be causes of serious structural deterioration and distress that can result in failure of earthen dams.

Documents

Dam Safety Inspection Information for Dam Owners

Poor & Unsafe Dam Follow-up Inspection Form

Hazard Class Change Request Application

Dam Construction Chapter 253 Permit Application

Dam Registration Form

Dam Safety Regulations

Related Links

Permit Process

Information on Emergency Action Plans

Available Information for Dam Owners

Policy on Trees on Dams

MGL Chapter 253 §§ 44-50

Funding for Dam Repair and Dam Removal Projects

Dam Registration Process

Association of State Dam Safety Officials

Department of Conservation and Recreation
Office of Dam Safety
180 Beaman Street
West Boylston, MA 01583
Phone: 508-792-7716 ext 600
E-mail: dam.safety@state.ma.us

dcr Massachusetts

Yes

No

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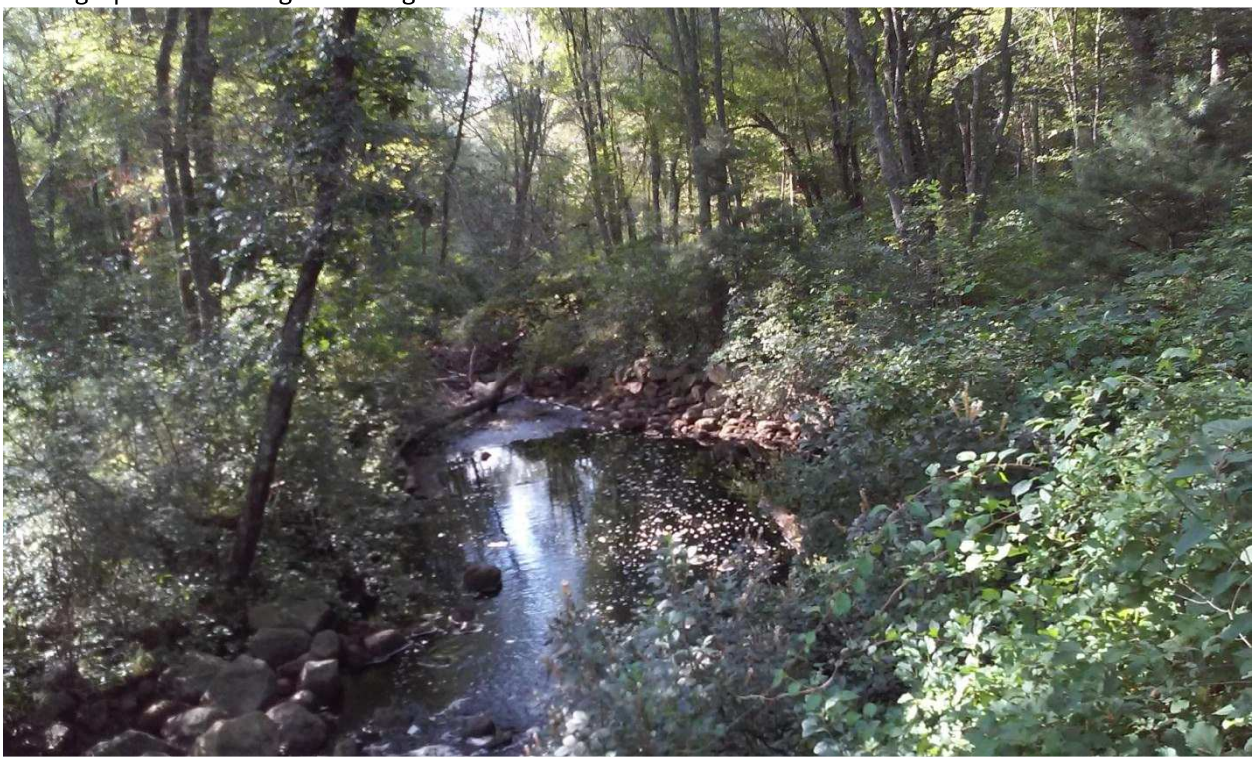
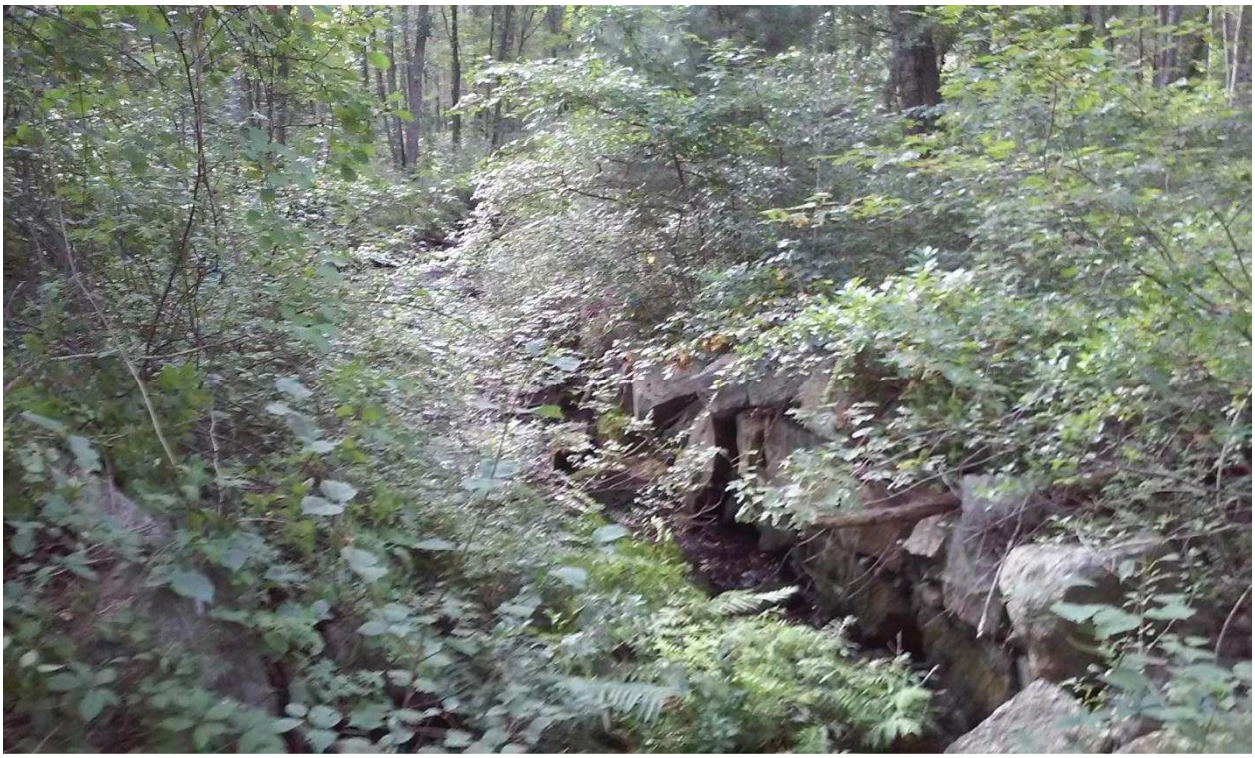
Appendix C
Site Photographs

Turner Pond Site Photographs Taken August 18 and 21, 2014

Photograph 1: From flag 1-1 facing north.



Photograph 2: From flag 1-1 facing south.



Photograph 3: From flag 1A-4 facing east.

Photograph 4: From flag 1A-4 facing west.

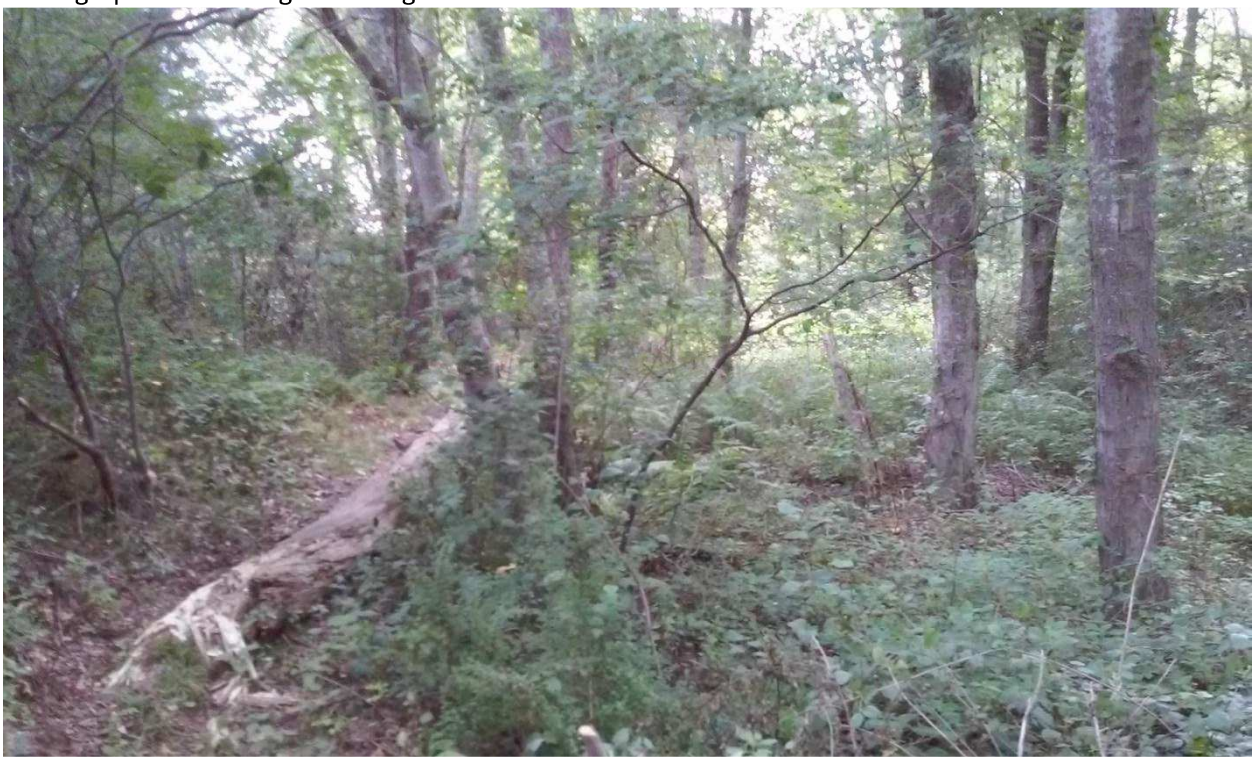
Photograph 5: From flag 1-4 facing south.

Photograph 6: From flag 1-6 facing north.

Photograph 7: From flag 1-6 facing west.

Photograph 8: From flag 2-2 facing north.

Photograph 9: From flag 2-4 facing east.



Photograph 10: From flag 2-8 facing east.

Photograph 11: From flag 3-4 facing north.

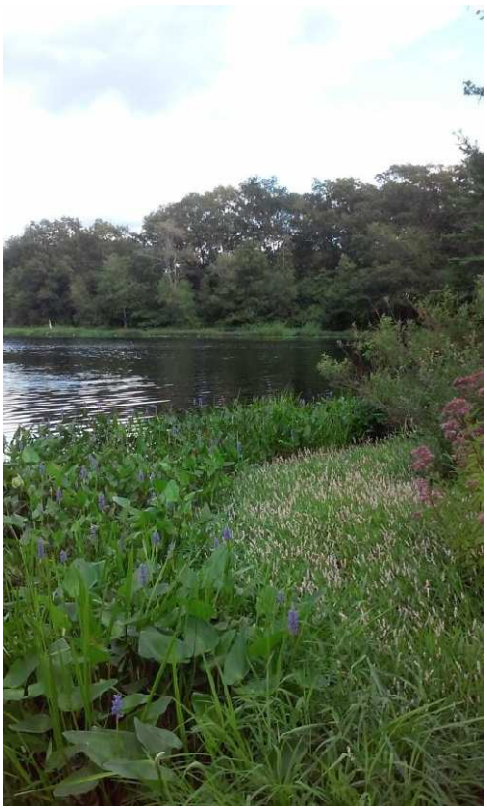
Photograph 12: From flag 3-4 facing west.

Photograph 13: From flag 3-18 facing west.

Photograph 14: From flag 3-18 facing east.

Photograph 15: From flag 3-18 facing north at Turner Pond.

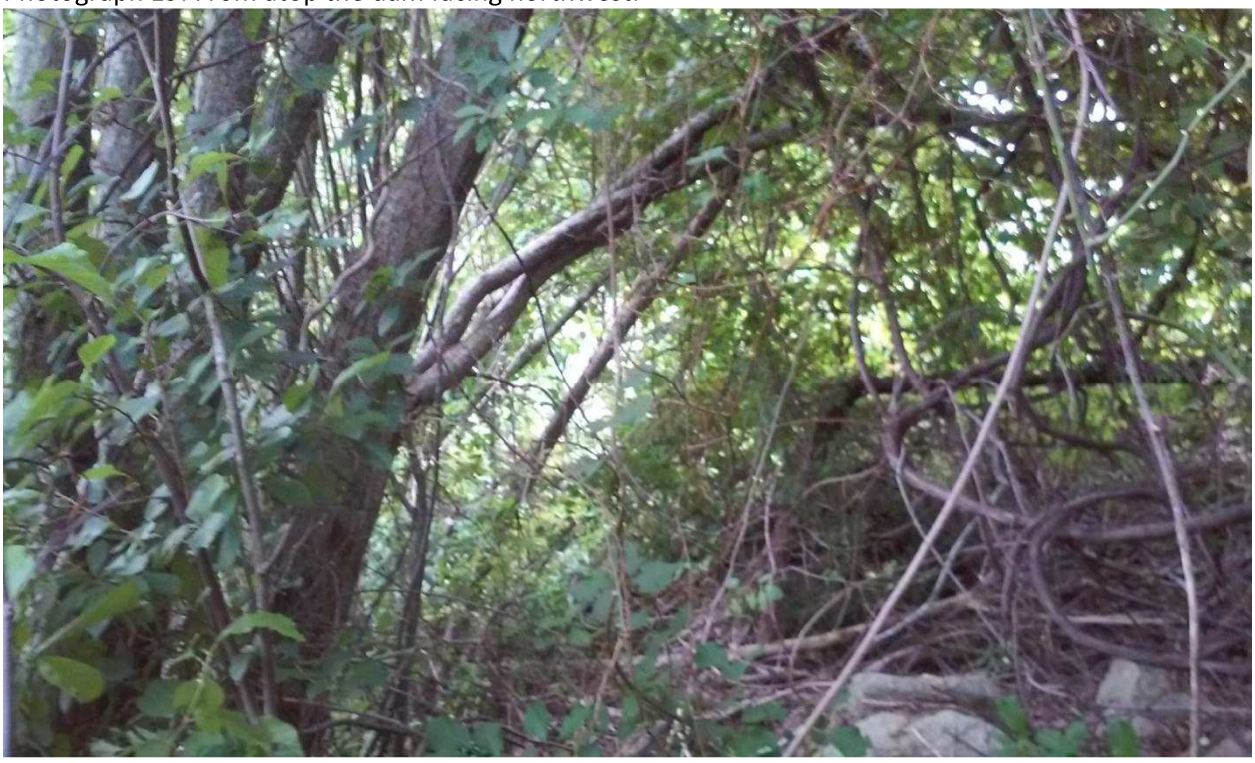
Photograph 16: From flag 3-18 facing south at Old Plainville Road.



Photograph 17: From atop the dam facing northeast.

Photograph 18: From flag 3-20 facing west.

Photograph 19: From atop the dam facing northwest.



Photograph 20: From flag 3-35 facing east.

Appendix D
Wetland Determination Data Form

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Turner Pond City/County: New Bedford & Dartmouth, Bristol Co Sampling Date: 8/18/2014

Applicant/Owner: City of New Bedford State: MA Sampling Point: W2-15

Investigator(s): Andrew Poyant & Magdalena Lofstedt Section, Township, Range:

Landform (hillslope, terrace, etc.): swamp Local relief (concave, convex, none): concave

Slope (%): 0-1 Lat: 41.6784 Long: -70.9761 Datum:

Soil Map Unit Name: 52A-Freetown muck, 0 to 1% slopes NWI classification: PFO1

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ___ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ___

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No ___	**Is the Sampled Area within a Wetland?** **Yes** ✓ **No** ___
Hydric Soil Present?	Yes ✓	No ___	
Wetland Hydrology Present?	Yes ✓	No ___	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches):
Water Table Present?	Yes ___	No ✓	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes ✓	No ___	Depth (inches): 17

Wetland Hydrology Present? **Yes** ✓ **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: **W2-15**

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. red maple (Acer rubrum)	30/60=50%	yes	FAC
2. green ash (Fraxinus pennsylvanica)	20/60=33%	yes	FACW
3. white pine (Pinus strobus)	10/60=17%	no	FACU
4.			
5.			
6.			
7.			
	60 = Total Cover		

Sapling/Shrub Stratum (Plot size: 15)			
1. spicebush (Lindera benzoin)	15/77=19%	yes	FACW
2. northern arrowwood (Viburnum recognitum)	15/77=19%	yes	FAC
3. sweet pepperbush (Clethra alnifolia)	15/77=19%	yes	FAC
4. multiflora rose (Rosa multiflora)	15/77=19%	yes	FACU
5. white pine (Pinus strobus)	10/77=13%	no	FACU
6. green ash (Fraxinus pennsylvanica)	5/77=6%	no	FACW
7. American elm (Ulmus americana)	2/77=3%	no	FACW
	77 = Total Cover		

Herb Stratum (Plot size: 5)			
1. royal fern (Osmunda spectabilis)	25/45=55%	yes	OBL
2. poison ivy (Toxicodendron radicans)	10/45=22%	yes	FAC
3. jewelweed (Impatiens capensis)	5/45=11%	no	FACW
4. green brier (Smilax sp.)	5/45=11%	no	FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	45 = Total Cover		

Woody Vine Stratum (Plot size: 30)			
1. poison ivy (Toxicodendron radicans)	10/12=83%	yes	FAC
2. green brier (Smilax sp.)	2/12=17%	no	FAC
3.			
4.			
	12 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 8 (A)

Total Number of Dominant Species Across All Strata: 9 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 8/9=89% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ✓ **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W2-15

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 2/1	100					loamy sand	
7-15	10 YR 2/2	85	10 YR 3/4	15	C	M	loamy sand	
15-17	10 YR 3/4	100					coarse sand	
17-24	2.5 Y 3/2	70	10 YR 3/3	30	C	M	coarse sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☒ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ✓ **No** __

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Turner Pond City/County: New Bedford & Dartmouth, Bristol Co Sampling Date: 8/18/2014

Applicant/Owner: City of New Bedford State: MA Sampling Point: U2-14

Investigator(s): Andrew Poyant & Magdalena Lofstedt Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Outwash plains Local relief (concave, convex, none): convex

Slope (%): 3-8 Lat: 41.6784 Long: -70.9761 Datum: _____

Soil Map Unit Name: 254B-Merrimac fine sandy loam, 3-8% slopes NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ___ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ___

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	No ___	**Is the Sampled Area within a Wetland?** **Yes** ___ **No** ✓
Hydric Soil Present?	Yes ___	No ✓	
Wetland Hydrology Present?	Yes ___	No ✓	If yes, optional Wetland Site ID: _____

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No ✓	Depth (inches): _____
Water Table Present?	Yes ___	No ✓	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ___	No ✓	Depth (inches): _____

Wetland Hydrology Present? Yes ___ **No** ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: **U2-14**

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1. multiflora rose (Rosa multiflora)	30/60=50%	yes	FACU
2. wild grape (Vitis sp.)	15/60=25%	yes	FAC
3. bittersweet (Celastrus orbiculatus)	10/60=17%	no	UPL
4. blackberry (Rubus pensilvanicus)	5/60=8%	no	FACU
5.			
6.			
7.			
	60 = Total Cover		
Herb Stratum (Plot size: 5)			
1. Aster (Aster sp.) no flower			
2. jewelweed (Impatiens capensis)			FACW
3. sensitive fern (Onoclea sensibilis)			FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	= Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: U2-14

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10 YR 2/1	100					sandy loam	
6-12	10 YR 4/6	100					loamy sand	
12-18	10 YR 4/4	80	10 YR 3/2	20	CS	M	coarse sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** ✓

Remarks:

Appendix E
Abutters Notification

Notification to Abutters under the City of New Bedford Wetlands Ordinance

and the Massachusetts Wetlands Protection Act

In Accordance with the City of New Bedford Wetlands Ordinance (New Bedford Code of Ordinances Sections 15-101 through 15-112) you are hereby notified of the following.

The name of the applicant is: City of New Bedford

The applicant has filed a Request for Determination of Applicability for the municipality of New Bedford, Massachsuetts seeking permission to remove, fill, dredge or alter an area subject to protection under the City of New Bedford Wetlands Ordinance (New Bedford Code of Ordinances Sections 15-101 through 15-112).

The address of the lot where the activity is proposed is: Turner Pond Dam, Old Plainville Rd
Assessor's Map 124; Lot 1, 21, 62

Copies of the Notice of Intent may be examined at the New Bedford Conservation Commission, City Hall, 133 William St. Room 304 New Bedford, MA 02740 between the hours of 8:00 AM and 4:00 PM, Monday through Friday. For more information call (508) 991-6188.

Copies of the Notice of Intent may be obtained from either (check one) the applicant _____ or the applicant's representative X by calling this telephone number (401) 457-0353 between the hours of 8:00 AM and 4:00 PM on the following days of the week: Monday through Friday.

Information regarding the date, time and place of the public hearing may be obtained from New Bedford Conservation Commission by calling 508-991-6188 between the hours of 8:00 AM and 4:00 PM Monday through Friday.

Note: Notice of the Public hearing, including its date, time and place, will be posted in the City Hall not less than forty eight (48) hours in advance of the meeting.

Note: Notice of the Public Hearing including its date, time and place, will be published at least five (5) days in advance in the Standard Times.

Note: You may also contact the New Bedford Conservation Commission at 508-991-6188 for more information about this publication or the City of New Bedford Wetlands Ordinance

I, Carlos Alvarado, Administrative Assistant to the Board of Assessors of the City of New Bedford, do hereby certify that the names and addresses as identified on the attached "abutters list" are duly recorded and appear on the most recent tax.

Date: 9/25/2014

SUBJECT PROPERTY: 1, 21, 62

MAP 124 LOT ~~3, 4, 21, 62~~ ; Dartmouth 193_2_5, 73_18, 68_17

LOCATION Turner Pond Dam, Old Plainville Road

pcd

OWNER'S NAME City of New Bedford

MAILING ADDRESS CDM Smith 260 West Exchange St Providence RI

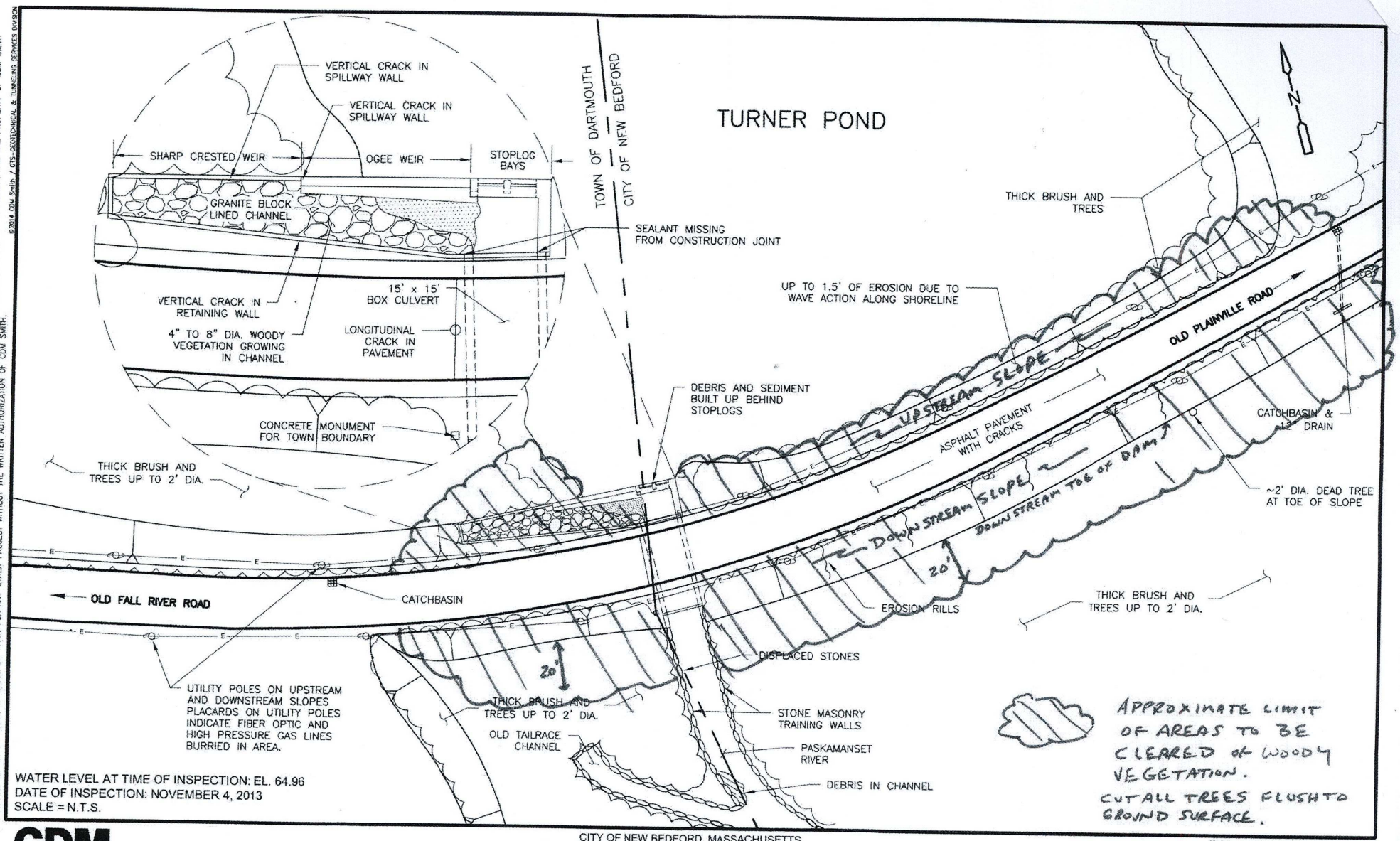
CONTACT PERSON Andrew Poyant

TELEPHONE NUMBER 401-452-0353

EMAIL ADDRESS poyantar@cdmsmith.com

REASON FOR REQUEST

Turner Pond Dam improvements 20 feet off of Old Plainville Road to the north and south. A permit application will be filed with the conservation commission on behalf of the New Bedford Department of Public Infrastructure.



WATER LEVEL AT TIME OF INSPECTION: EL. 64.96
DATE OF INSPECTION: NOVEMBER 4, 2013
SCALE = N.T.S.

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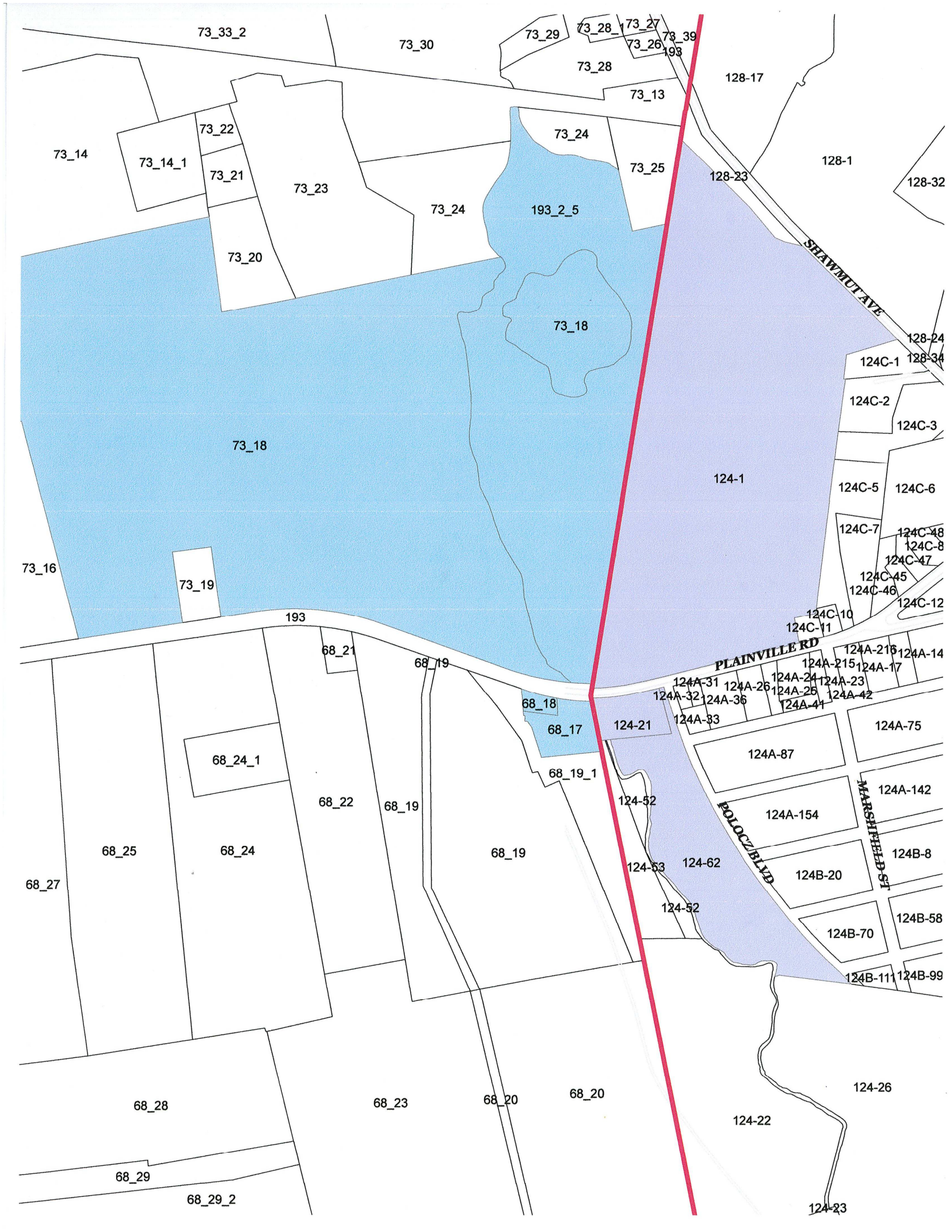
CDM Smith

CITY OF NEW BEDFORD, MASSACHUSETTS
TURNER POND DAM
STATE DAM ID NO.: 36-3-201- NID ID NO.: MA03266

FIELD SKETCH AND NOTES
FIGURE 5
NOVEMBER 2013


73_33_2
73_30
73_29
73_28_1
73_27
73_26
73_39
193
73_28
128-17
73_13
73_14
73_14_1
73_22
73_21
73_23
73_24
73_25
128-23
128-1
128-32
193_2_5
73_20
SHAWMUT AVE
73_18
128-24
128-34
124C-1
124C-2
124C-3
124-1
124C-5
124C-6
124C-7
124C-48
124C-8
124C-47
124C-45
124C-46
124C-12
73_16
73_19
193
124C-10
124C-11
68_21
68_19
PLAINVILLE RD
124A-216
124A-14
124A-215
124A-17
124A-31
124A-26
124A-24
124A-23
124A-32
124A-36
124A-25
124A-42
124A-41
68_18
124A-33
68_17
124-21
124A-75
124A-87
68_24_1
68_19_1
124A-142
68_22
68_19
124-52
MARSHFIELD ST
POLOCZ BLVD
124A-154
124B-8
68_25
68_24
68_19
124-53
124-62
124B-20
68_27
124-52
124B-58
124B-70
124B-111
124B-99
68_28
68_23
68_20
68_20
124-26
124-22
68_29
68_29_2
124-23

September 22, 2014

Dear Applicant,

Please find below the List of Abutters within 100 feet of the project area described as occurring within the linear boundaries of ~70' west of Turner Pond Dam to ~150' east of Turner Pond Dam, and within that section, extending 20' north and 20' south of Old Plainville Road. The most proximate parcels to the project area are 124-1 and 124-21. A portion of these abutting properties are located within the City of New Bedford, and the remaining portion located within the Town of Dartmouth. The subject properties must be certified by the Assessor's Office for each corresponding municipality.

Please note that multiple listed properties with identical owner name and mailing address shall be considered duplicates, and shall require only 1 mailing. Additionally, City of New Bedford-Owned properties shall not require mailed notice.

City of New Bedford

Parcel	Location	Owner and Mailing Address
124-21	OLD PLAINVILLE RD	CITY OF NEW BEDFORD, CONSERVATION 131 WILLIAM ST NEW BEDFORD, MA 02740
124-62	OLD PLAINVILLE RD	CITY OF NEW BEDFORD, MILL RIVER PARK 131 WILLIAM ST NEW BEDFORD, MA 02740
124-1	SHAWMUT AVE	COMMONWEALTH OF MASS DEPT, DEPT OF ENVIRONMENTAL MGT OFFICE OF THE COMMISSIONER 100 CAMBRIDGE STREET BOSTON, MA 02202

Town of Dartmouth

Parcel	Location	Owner and Mailing Address
68_17	OLD FALL RIVER RD	PERREIRA ROBERT L TRUSTEE, P O BOX 43 ROCHESTER, MA 02770
68_18	OLD FALL RIVER RD	PERREIRA ROBERT L TRUSTEE, P O BOX 43 ROCHESTER, MA 02770
73_18	OLD FALL RIVER RD	DEGRAZIA, ROBERT P 636 FAUNCE CORNER ROAD N. DARTMOUTH, MA 02747
193_2_5	Water	N/A

Sincerely,

Patrick C. Day, AICP
Staff Planner

CDM Smith

cdmsmith.com